

South Dakota Science and Technology Authority

**Board Meeting
September 17, 2020**



630 East Summit Street
Lead, SD 57754

Call to Order—Chairperson Casey Peterson

1A. Call Roll

Dr. Ani Aprahamian
Mr. Dana Dykhouse, reappointed for an additional 6-year term
Ms. Pat Lebrun
Mr. Roger Musick
Mr. Casey Peterson
Mr. Ron Wheeler
Dr. Bob Wilson
Dr. James Rankin, ex-officio member

1B. Introduce guests

1C. Public comment form (submit forms prior to start of board meeting)

Procedure for Public Comment Periods

Pursuant to SDCL 1-25-1 as amended by House Bill 1172 in the 2018 Legislative Session the procedure for conducting public comment periods during meetings of the South Dakota Science and Technology Authority (SDSTA) shall be as follows:

The chair of the SDSTA shall reserve a period for public comment, limited at the chair's discretion, at each meeting.

Before the beginning of the meeting, all persons who wish to make comments during the comment period shall indicate their desire to do so on a form that will be provided by the Executive Director. The form shall indicate the person's name, city of residence and generally describe the matter or matters on which the person wishes to comment.

The amount of time allocated to each interested person who wishes to make comments will be determined at the chair's discretion at each meeting.

Comments must be limited to matters which are under the jurisdiction of the SDSTA.

All persons making public comments at meetings of the SDSTA must do so in a manner that maintains civility. Comments which contain offensive language or profanity will not be tolerated.

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Approve Agenda—Chairperson Casey Peterson

Attached is the SDSTA Board agenda for the September 17, 2020 meeting.

Recommended Action:

Motion to approve agenda as presented.

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AGENDA
South Dakota Science and Technology Authority
630 East Summit Street, Lead, South Dakota
Meeting of the Board of Directors
Thursday, September 17, 2020 at 8:00 AM (MT)
****Yates Education & Outreach Conference Room****

Public (Open) Session: 1-669-900-6833, Meeting ID: 605 722 4022, Passcode: 8650, <https://zoom.us/join>

SDSTA Mission: *We advance world class science and inspire learning across generations.*

SURFs COVID-19 protocols require all individuals to stop at the health screening unit at the Yates Complex entry gate to answer health questions and get a temperature check before entering the premises. While on site, all individuals shall maintain physical distancing, when possible. SURF requires everyone wear a mask in all enclosed buildings when groups of two or more people are present. The SDSTA appreciates everyone's cooperation as we all strive to keep SURF a safe and healthy place to work.

Members of the public are encouraged to join the open session by phone.

Title	Report	Recommendations
1. Call to order	-- Chair Casey Peterson	
A. Call roll		<i>Confirm quorum</i>
B. Introduce guests		
C. Reminder request for public comment form		<i>Confirm if any public comment forms were submitted before the start of the meeting</i>
2. Approve agenda	-- Chair Casey Peterson	<i>Motion to approve agenda</i>
3. Approve minutes	-- Chair Casey Peterson	<i>Motion to approve the June 25 and July 24 minutes</i>
4. Conflict of interest disclosure	-- Mr. Tim Engel	<i>Informational</i>
5. Conflict of interest disclosure and waiver under SDCL CH. 3-23	-- Mr. Tim Engel	
A. Disclosure—Ron Wheeler		
6. Report from Audit Committee		<i>Informational</i>
A. Internal Controls meeting and preaudit meeting update	-- Ms. Pat Lebrun	
B. Appointment of new Audit Committee member	-- Chair Casey Peterson	
7. Financial Report	-- Mr. Mike Headley	
A. Financial statements	-- Ms. Nancy Geary	
B. SD Investment Council Letter		<i>7B. Motion to approve interest earning accrual at percentage discussed for fiscal year 2020</i>
C. FY end inventory listing		
D. FY end per diem listing		<i>Motion to accept report as presented</i>

Please do not place or accept cell phone calls during this meeting. A copy of this agenda has been posted in a manner visible to the public at the entrance to the South Dakota Science and Technology Authority office located at 630 East Summit Street, Lead, South Dakota at least 72 hours prior to this meeting. Telephone: (605) 722-8650.

AGENDA
South Dakota Science and Technology Authority
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Title	Report	Recommendations
8. Report from Executive Director	-- Mr. Mike Headley	
A. Declaration of Surplus—beams from old machine shop		
B. SURF Foundation update		
C. SURF Institute Science Study update	-- Ms. Elizabeth Freer	
D. SURF strategic planning update		
E. SDSTA quarterly update		
F. LZ update	-- Mr. Charles Maupin	<i>Presentation</i>
G. LBNF update	-- Mr. Joshua Willhite	<i>Presentation</i>
		<i>Motion to accept executive director's report</i>
9. Review of SDSTA policies and procedures	-- Mr. Mike Headley	<i>Motion to approve new Flexible Work Options Policy and updated Outside Employment Policy, as presented</i>
10. Executive session (closed meeting)	-- Chair Casey Peterson	<i>Motion to enter executive session to discuss personnel matters and to consult with legal counsel concerning contractual and legal matters—SDCL 1-25-2(1), (3), and (4)</i>
11. Report from executive session	-- Chair Casey Peterson	<i>Motion to accept executive session report</i>
12. Approve land lease agreement between SDSTA and Caterpillar Global Mining LLC	-- Mr. Mike Headley	<i>Motion to authorize the Executive Director and Legal Counsel to negotiate the final terms of the land lease agreement between SDSTA and Caterpillar Global Mining LLC and authorize the Executive Director to sign the agreement</i>
13. Confirm date and time of next meeting	-- Chair Casey Peterson	<i>Thursday, December 17 at 9:00am (MT)</i>
14. Public comments	-- Chair Casey Peterson -- Mr. Kevin Wagner	<i>Update on Deadwood Housing Development</i>
15. Board comments	-- Chair Casey Peterson	
16. Adjourn	-- Chair Casey Peterson	<i>Motion to adjourn</i>

**Meeting of the Board of Directors
Thursday, September 17, 2020**

SDSTA Board Member Terms of Service, Committees and Schedule

	Board Members and Terms of Service		
	Board Members	Appointed	Term Expires
1.	Dr. Ani Aprahamian	Re-appointed December 10, 2015	December 9, 2021
2.	Mr. Dana Dykhouse, Vice-Chair	Re-appointed August 15, 2020	August 14, 2026
3.	Ms. Patricia Lebrun, Secretary-Treasurer	Re-appointed August 5, 2016	August 8, 2022
4.	Mr. Roger Musick	Appointed September 19, 2018	August 21, 2022
5.	Mr. Casey Peterson, Chair	Re-appointed August 25, 2015	August 8, 2021
6.	Mr. Ron Wheeler, Vice-Chair	Re-appointed April 28, 2020	April 9, 2025
7.	Dr. Robert Wilson	August 24, 2015	August 8, 2021
8.	Dr. James Rankin, <i>ex-officio member</i>	SDSM&T President as of Jan 8, 2018	
	Committees and Members (2020-2021)		
	Audit Committee Members (Sep): tbd	Nominating Committee Members (Jun)	
	➤ Pat Lebrun-Chair	➤ Dana Dykhouse	
	➤ Dana Dykhouse	➤ Roger Musick	
	➤ Casey Peterson, ex-officio		
	2020 Board Schedule		
	February 25, 2020	8:00 am (MT)	Special Telephonic
	Thursday, March 19 2020	8:00 am (MT)	E&O Bldg
	March 25, 2020	8:00 am (MT)	Emergency Telephonic
	Thursday, June 25, 2020	8:00 am (MT), annual	E&O Bldg
	July 24, 2020	8:00 am (MT)	Special Telephonic
	Thursday, September 17, 2020	8:00 am (MT)	E&O Bldg
	Thursday, December 17, 2020	9:00 am (MT)	E&O Bldg

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Approve Minutes—Chairperson Casey Peterson

Attached are the following SDSTA Board Minutes:

- June 25, 2020 annual meeting
- July 24, 2020 telephonic special meeting

Recommended Action:

Motion to approve the June 25 and July 24, 2020 Minutes as presented.

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South Dakota Science and Technology Authority Board of Directors
Meeting Minutes
Thursday, June 25, 2020
Lead, South Dakota

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 8:00 AM Mountain Time (MT) on Thursday, June 25, 2020, in the Education and Outreach (E&O) Building Conference Room at the South Dakota Science and Technology Authority, 630 East Summit Street, Lead, South Dakota. To maintain physical distance due to the COVID-19 pandemic, cloth face masks were encouraged, and a conference number was posted on the agenda with an invitation for members of the public to participate in the meeting by telephone.

MEMBERS OF THE BOARD IN ATTENDANCE

Dr. Ani Aprahamian (by phone)
Vice Chairperson Dana Dykhouse (by phone)
Secretary/Treasurer Patricia Lebrun (by phone)
Mr. Roger Musick (by phone)
Chairperson Casey Peterson (in person)
Vice Chairperson Ron Wheeler (by phone)
Dr. Robert Wilson (by phone)
Dr. James Rankin, ex-officio (by phone)

MEMBERS OF THE BOARD ABSENT

None

SDSTA STAFF

Mr. Colton Clark, Communications Intern (by phone)
Mr. Tim Engel, Legal Counsel (in person)
Ms. Nancy Geary, Chief Financial Officer (in person)
Mr. Mike Headley, Executive Director (in person)
Ms. Mandy Knight, Administrative Services Manager (by phone)
Mr. William McElroy, Deputy Director of Operations (in person)
Ms. Staci Miller, SURF Foundation Director (by phone)
Mr. KC Russell, Cultural Diversity Coordinator (by phone)
Ms. Constance Walter, Communications Director (in person)
Ms. Natasha Wheeler, Administrative Assistant (in person)

ALSO PRESENT DURING ALL OR PART OF THE MEETING

Mr. Cash Anderson, Legal Counsel Intern (in person)
Mr. Paul Christen, Former SDSTA Board Member (by phone)
Ms. Darla Drew, Rapid City Arts Council Development Director (by phone)
Ms. Gina Gibson, SURF Artist-in-Residence (BHSU) (by phone)
Mr. Alex Portal, Black Hills Pioneer Journalist (by phone)
Ms. Kara Semmler, Senior Policy Advisor, Office of Governor Noem (by phone)
Mr. Jim Wefso, Homestake Opera House Board Member (by phone)
Ms. Debra Wolf, E&O Director (BHSU) (in person)

ITEM 1. CALL TO ORDER

Chairperson Casey Peterson called the meeting to order at 8:00 AM (MT). Roll call was held. Dr. Ani Aprahamian, Mr. Dana Dykhous, Ms. Pat Lebrun, Mr. Roger Musick, Mr. Ron Wheeler, Dr. Bob Wilson and Dr. Jim Rankin were present by phone. Chairperson Peterson was present in person.

Chairperson Peterson then asked audience members to introduce themselves. He said if anyone from the audience had any questions or comments for the board to address, to please complete the public comment form located at the sign-in table and time will be given at the end of the agenda to discuss.

ITEM 2. APPROVE AGENDA

Chairperson Peterson asked if there were any modifications to the agenda. Hearing none, Chairperson Peterson asked for a motion to approve the agenda.

Motion by Mr. Musick and seconded by Mr. Wheeler to approve the agenda as presented. Motion passed unanimously by roll call vote.

ITEM 3. APPROVE MINUTES

Chairperson Peterson asked for any comments on the March 19 or March 25, 2020 Minutes. Hearing none, he asked for a motion to approve the minutes.

Motion by Mr. Wheeler and seconded by Dr. Wilson to approve the March 19, 2020 and March 25, 2020 minutes as presented. Motion passed unanimously by roll call vote.

ITEM 4. GENERAL CONFLICT OF INTEREST DISCLOSURE

SDSTA Legal Counsel Mr. Tim Engel invited members of the board to disclose anything that might be construed to be a conflict of interest relative to their role on the board.

No conflicts of interest were disclosed.

ITEM 5. DISCLOSURES AND WAIVER UNDER SDCL CH. 3-23

Mr. Engel said in regard to disclosures and waivers under SDCL Ch. 3-23, he polled the board members prior to the meeting and no disclosures were made. Mr. Engel stated no board action is required. He also noted that annual disclosures concerning contracts with the state and political subdivisions will be due at the September 17, 2020 board meeting.

ITEM 6. APPROVAL OF FY2021 OFFICE OF RISK MANAGEMENT INTERGOVERNMENTAL AGREEMENT

Mr. Headley said SURF updates the intergovernmental agreement with the Office of Risk Management for health and safety oversight each year. This year, the two main changes are (1) an adjustment to allow for reimbursement of ORM staff time and expenses when assisting SDSTA with insurance and other matters, and (2) the annual update to the codes and standards listing to reflect the current status of the SDSTA Environment, Safety and Health Department policies and procedures. Mr. Headley asked the board to approve the agreement and authorize him to sign it. Mr. Engel clarified the additional costs in the agreement are strictly for reimbursement and there is no markup. Mr. Headley noted that sections in the codes and standards list that appear stricken have been integrated into other sections, and not removed without cause.

Motion by Mr. Wheeler and seconded by Mr. Musick to approve the FY2021 Intergovernmental Agreement between the Bureau of Administration, Office of Risk Management of the State of South Dakota and SDSTA and to authorize SDSTA Executive Director to sign the agreement. Motion passed unanimously by roll call vote.

Due to technical difficulties, Mr. Dana Dykhouse joined the meeting by phone at 8:10 AM.

ITEM 7. SURF FOUNDATION

ITEM 7A. APPROVE REPLACEMENT SURF BOARD MEMBER

Mr. Headley said that SURF Foundation board members are term-limited, and Mr. Wheeler was brought onboard with a one-year term that ends on July 1, 2020. To fill Mr. Wheeler's vacant seat, Mr. Fred Romkema of Spearfish was chosen and agreed to join the board. He said Mr. Romkema was co-founder and CEO of the Northern Hills Training Center in Spearfish until his recent retirement, as well as a long-time legislator who has worked on issues related to SURF. Mr. Headley added that Mr. Romkema has incredible contacts around the state and is a great supporter of SURF, and requested that he be added to the SURF Foundation Board. Mr. Engel explained the procedure for new SURF Foundation board members requires a recommendation to, and approval from, the SDSTA board and added that Mr. Romkema's nomination was made by the SURF Foundation board by a writing in lieu of a meeting. Mr. Headley stated that although Mr. Wheeler will no longer be on the SURF Foundation board, he will remain on the SDSTA board, per his reappointment in April 2020. Mr. Headley also expressed his appreciation to Mr. Wheeler for serving as the Foundation board chair over the past year; he was instrumental in getting the Foundation established. Mr. Wheeler noted his approval of Mr. Romkema and his support for the new SURF Foundation Board Chair, Mr. Dykhouse. He also reminded the SDSTA board that, although plans were delayed due to COVID-19, the ultimate goal is to bring on a number of national board members to help raise funds as a large and influential board.

Motion by Mr. Dykhouse and seconded by Ms. Lebrun to approve appointment of Mr. Fred Romkema to fill the seat to be become vacant at the end of the term of Mr. Ron Wheeler on July 1, 2020. Motion passed unanimously by roll call vote.

ITEM 7B. UPDATE

Mr. Headley said SURF Foundation Director Ms. Staci Miller and SDSTA Administrative Assistant Ms. Natasha Wheeler have been working on getting the structure of the SURF Foundation put together, including the installation of new donor management software called Bloomerang. He said Ms. Miller has been coordinating with Ms. Geary to get QuickBooks accounting software established and is working with a number of partners to successfully gain donations and grants for Education and Outreach and Neutrino Day. Mr. Headley added that the Foundation would like to launch a campaign to raise funds for the ethnobotanical garden, and Ms. Miller has drafted a financial planning statement to address a few hundred thousand dollars for that project. Concerning the SURF Institute, Mr. Headley said he and SDSTA Science Director Dr. Jaret Heise have created a list of 19 professionals to interview and will share plans with the board to move forward with that in the coming weeks. Ms. Miller confirmed the update provided by Mr. Headley and expressed her appreciation to Mr. Wheeler for his vision and efforts for the SURF Foundation board over the last year.

ITEM 8. AUDIT COMMITTEE

ITEM 8A. ANNUAL APPOINTMENT OF MEMBERS

Chairperson Peterson appointed Ms. Lebrun and Mr. Dykhouse to continue to serve on the audit committee and commended their work in that role.

ITEM 8B. ANNUAL REVIEW OF AUDIT CHARTER

Ms. Lebrun referred to the SDSTA Audit Committee meeting minutes in the board packet and said she and Mr. Dykhouse met with Ms. Geary to review the audit charter and found no need for any changes. They also approved Ms. Geary to meet with the state auditor-general's office and begin the internal

audit process for Fiscal Year 2020 in late September/early October 2020. A completed report would be ready for review at the December 2020 board meeting and a request for approval at the board meeting in March 2021.

ITEM 8C. UPDATE TO INTERNAL CONTROL AUDIT

Ms. Lebrun referred to the board packet concerning the completed SDSTA internal control audit report performed by CliftonLarsonAllen, LLP (CLA), and asked the board to approve the report to create a permanent, public record showing SDSTA's initiative to ensure appropriate internal controls.

Chairperson Peterson thanked the audit committee and congratulated them on the satisfactory results.

Ms. Geary said that the audit report will be completed in three sections, and two of the sections have been completed. She said the information for the Information Technology (IT) section has been sent to CLA and staff is awaiting a final report. Chairperson Peterson suggested making an internal control audit summary available on the Sanford Lab website for transparency and to highlight the first two sections from CLA returned as satisfactory with no comments. Mr. Engel noted that the internal control audit being discussed for approval is available to the public as a part of the board packet. Chairperson Peterson asked the audit committee to address Environmental, Social and Governance (ESG) standards at their next meeting with the auditor to ensure that ESG standards, ensuring a sustainable investment, are being complied with as applicable for a non-profit organization. Chairperson Peterson asked for a motion to approve the report, stating that it was a satisfactory report with no reportable incidents.

Motion by Ms. Lebrun and seconded by Mr. Dykhouse to approve the internal audit report performed by CLA, LLP dated June 1, 2020 as presented. Motion passed unanimously by roll call vote.

ITEM 9. FINANCIAL REPORT

ITEM 9A. FINANCIAL SUMMARIES

Ms. Geary said the current fiscal year ends June 30, with restricted budgets and indirect costs appearing to be mostly on track, and she expects to have June details gathered by mid-July. Reviewing May 2020 financials, Chairperson Peterson noted that demolished property does not recover any depreciated expenses and should be noted when demolition projects are considered. Ms. Geary said that noting costs associated with indirect charges related to depreciation justify the purchase of new assets, and the last year has seen the purchase of several important new assets, including new vehicles and new IT hardware. Chairperson Peterson also noted that the \$5 million line of credit held with First National Bank is still available.

Motion by Mr. Musick and seconded by Dr. Wilson to accept the financial report as presented. Motion passed unanimously by roll call vote.

ITEM 9B. FY2021 BUDGET

Ms. Geary referred to the FY2021 budget in the board packet and noted that the SDSTA budget has increased by about \$100,000.00 for the upcoming year to account for costs related to the SURF Foundation, plans for the new ethnobotanical garden, and SURF Institute development. She noted that intern costs remain the same and are supported by the Chris Bauer and Jack Headley memorial funds. She said federal and state funding stands at an estimated \$43 million, including the cooperative agreement and several smaller contracts with Lawrence Berkeley National Laboratory, Oak Ridge National Laboratory, Fermilab for Kiewit-Alberici Joint Venture (KAJV) support, and finalization of the Ross Shaft rehabilitation project. Ms. Geary added, the operational CAPEX budget includes three projects, with funds allocated for the Sanford Lab Homestake Visitor Center, LUX-ZEPLIN (LZ) xenon interest and insurance and construction of the Maintenance Support Facility. Mr. Headley noted that the

Ross Rehabilitation commissioning is expected to be completed in February of 2021. Ms. Geary noted that last year's full-time employee count was 169 but is estimated to be 181 in FY2021.

*Motion by Mr. Wheeler and seconded by Mr. Dykhouse to approve the FY2021 budget as presented.
Motion passed unanimously by roll call vote.*

ITEM 10. REPORT FROM EXECUTIVE DIRECTOR

ITEM 10A. DECLARATION OF SURPLUS (1)

Mr. Headley said SDSTA purchased a 40-unit cap lamp charging station in 2008, which has been replaced. He said the old charging station and lamps have been fully depreciated and will be donated to a virtual reality project.

ITEM 10B. SDSTA QUARTERLY UPDATE

Mr. Headley gave an update for SURF's status and expressed appreciation for managements' role and Mr. McElroy's leadership in response to COVID-19. Mr. Headley said the Ross Shaft has been operating at Level 1, both day and night shifts, since May 5; the Yates Shaft transitioned to Level 1 operations for science in early June; KAJV construction returned to full staffing on May 18; science day-shift work has resumed and LZ night shifts will also be resuming soon. Mr. Headley said Personal Protective Equipment (PPE) has been difficult to procure, but PPE quantities are improving with daily review. Daily COVID-19 status meetings have transitioned to three times per week, and the weather and safety administrative leave invoicing is moving forward under the cooperative agreement (CA) with final legal and contract discussions underway with LZ and LBNF. Mr. Headley said physical distancing posters have been placed throughout the site and that controls put in place seem to be working; the emphasis remains on keeping people vigilant about using safety precautions.

Reviewing onsite incident rates, Mr. Headley noted the injury that occurred in February 2020, but said there have not been any additional incidents since then.

In Sanford Lab updates, Mr. Headley said federal funding support remains strong and the budget markup process is underway for FY2021. He said SDSTA is in the ninth month of performance under the SURF Operations CA and an additional \$5.5 million of infrastructure improvement projects (IIP) are in technical review with the Department of Energy, focusing on the Ross Water Line project. The IIP program was submitted in March 2020, noting COVID-19 has put pressure and delays on grant approval processes. He said LZ has resumed installation and night shift work is planned, and the transition of Ross Campus science activities to other locations is underway for Black Hills State University Underground Campus and SIGMA-V, with CASPAR operations continuing in place through late 2020. Mr. Headley said Maintenance Support Facility construction is underway and completion is planned in May 2021. He noted SURF declined a proposal from a local mining firm interested in activities at SURF. He said the SURF Institute science program study is in development, ethnobotanical garden design activity has resumed, and fundraising plans are advancing. Mr. Headley noted the E&O program and Neutrino Day were transitioned to virtual platforms this year, and that the team is working to trademarking "Neutrino Day" in preparation for reaching larger audiences in the future. Mr. Headley said the Davis Cavern was selected by the American Physical Society as a historic site, and a dedication ceremony is being planned for December 10, in conjunction with Nobel Day.

Mr. Headley said the Ellison Boiler House was demolished after a roof cave-in from a snowstorm posed a safety risk, and the rope house was demolished while the work crew was onsite, using indirect funds. He said progress is being made on Long-Baseline Neutrino Facility (LBNF) conveyor installation, and upcoming LBNF work in the next three to four months includes the installation of power and fiber in the Ross Shaft, wall repairs between the skip loader and the ore pass, installation of the skip loader,

excavation mobilization and installation of a blast door on the 4850L, installation of fire suppression water piping from the 4550L to the 4850L, excavation on the 3650L, civil and structural work on the conveyor, installation of the tramway conveyor, installation of a crusher, and electrical work to set a 69 kilovolt switchgear and pull cable through the duct banks. Mr. Headley also noted that all current efforts are still designated as pre-excavation work.

Communications Director Ms. Constance Walter said, like the E&O team, her staff and planning committee were very disappointed to learn that Neutrino Day would have to be cancelled due to COVID-19, but the team was able to step up and create a virtual event, including speakers such as science comedian Brian Malow, “Science Steve” Rokusek, Jeremy Red Eagle and his family, Dr. Bill Roggenthen, SURF artist-in-residence Ms. Gina Gibson, Dr. Ryan Patterson, Mr. Mark Hanhardt, Dr. Simon Fiorucci and theoretical astrophysicist Dr. Katie Mack. Ms. Walter explained that moving to a virtual platform made the event more practical when scheduled out over a week, versus being held on a single day, and shared the Neutrino Day website, www.neutrinoday.com. She encouraged everyone to review the agenda, take note of the speakers, thank the sponsors that are making the event possible and asked for participation in the activities taking place online July 6-11, Neutrino Day 2020: A Matter Mystery. Ms. Walter also noted equipment and software purchased for the transition to a virtual Neutrino Day will be useful in helping E&O team efforts and for creating a more global impact with future Neutrino Days. She also thanked Mr. Headley and the board for their work and support.

ITEM 10C. E&O UPDATE

E&O Director Ms. Wolf stated that every student deserves high quality, engaging, relevant, equitable, and rigorous science learning opportunities, and said there is a lot of work yet to be done—a fact made even clearer by the recent COVID-19 events that have highlighted opportunities for the E&O team to better realize their mission. She then told the board about the newest member of the E&O team, Teacher Development Specialist Ms. Nicol Reiner, who started with Sanford Lab’s E&O team on March 2, 2020. Ms. Wolf said that Ms. Reiner has served as the Director of the Office of Standards and Learning with the South Dakota Department of Education, as a math specialist for the South Dakota Department of Education, and as a secondary math teacher, providing hundreds of teachers with thousands of hours of professional development throughout her career. At a March 11, 2020, meeting with Mr. Headley and Ms. Walter, Ms. Wolf realized that cancellations would have to be made for everything scheduled in spring, 2020, including the Davis-Bahcall scholars program, the SDMath/SDSci teacher leadership program, spring field trips, school presentation, summer internships, summer professional development, STEM/STEAM night events, robotics events, Women in Science programming, Neutrino Day, and curriculum unit pilots. But, she said, her team refused to give up and instead, got creative about bringing resources to students through technology. She explained that within the last year but especially in the last two months, efforts went into the completion of two curriculum unit pilots, the rewriting of two units, and the creation of two new units as well.

Ms. Wolf then emphasized the E&O program’s support for teachers and outlined her team’s creation of virtual presentations, troubleshooting in online platforms, problem-solving to make online science interactive, discovery and sharing of learning resources, and connections on social media. She described a weekly Sanford Lab science session, in which teachers and her team learned about using Zoom software and creating interactive science, online. Ms. Wolf said six of the accepted seven interns were hired and would still have opportunities to work with SURF staff members over the summer, and two additional education interns will be added in fall, paid for with grants from Experimental Program to Stimulate Competitive Research (EPSCoR). Interns are working remotely but will be onsite when the work requires it.

Ms. Wolf also explained that EPSCoR supported teacher development was budgeted to interact with 180 professionals through six workshops throughout the state this summer, but with the high levels of virtual learning interest, the program will serve 232 teachers this year, representing 62 school districts, four universities, two tribal colleges and ten tribal schools in South Dakota. She said that eight sessions will be held throughout the summer, and teachers will have the materials to interact with a new Biofilms curriculum unit. Ms. Wolf said the current week-long professional development session includes 48 participants doing hands-on science and experiencing two curriculum units in their training. Ms. Wolf said COVID-19 challenges are bringing the E&O team to the edges of their abilities, but that is where learning and innovation are found, and the team has gained valuable insights for how to connect and provide resources to more people. Mr. Headley noted that the E&O program is being recognized for their outstanding work in professional development and student support.

ITEM 10D. SURF ARTIST-IN-RESIDENCE UPDATE

SURF Artist-in-Residence Ms. Gibson, a graphic design instructor at Black Hills State University, said she had an opportunity to go underground six or seven years ago with a group exhibition, and that planted a seed for her work. She said she has been always interested in science and looking for inspiration; this has been a huge opportunity for her in the last year to see, hear and learn. Ms. Gibson explained that she first had to gather materials, both physical and intellectual. She said she collected things and ideas, and then began describing her project to others which helped her to define her work, while trying to pay respect to the history of Homestake, the City of Lead and the science taking place at SURF. She said she is grateful for the opportunity to share some of her ideas at the February 2020 Deep Talks, and she invited everyone to visit her July 7-21 online exhibition, 'Seeking the Unseen'. Ms. Gibson noted that an in-person exhibition date at the Lead-Deadwood Arts Center is to-be-determined. Mr. Headley added, Ms. Gibson's Deep Talks presentation is available online, via the Sanford Lab YouTube website.

Motion by Mr. Musick and seconded by Dr. Aprahamian to accept the Executive Director's report as presented. Motion passed unanimously by roll call vote.

ITEM 11. SDSTA POLICIES AND PROCEDURES

ITEM 11A. ANNUAL REVIEW OF POLICY AND PROCEDURE

Mr. Headley introduced an update to the Leave Policy. He explained that instances occasionally arise when employees who use very little sick leave need to take an extended period of time to care for a family member. He said the current policy allows for sick leave time to care for a family member, but leave is capped at five days per year. In the updated policy, employees are allowed to use their sick leave up to their fully accrued amount. He also said the definition of immediate family is expanded. Mr. Engel said he reviewed the policy and the updates are appropriate.

Motion by Dr. Wilson and seconded by Ms. Lebrun to approve the updated Leave Policy as presented. Motion passed unanimously by roll call vote.

ITEM 11B. ANNUAL STATEMENTS AFFIRMING COMPLIANCE WITH FINANCIAL CONFLICT OF INTEREST POLICY

Chairperson Peterson asked the board if everyone has signed their Conflict of Interest form. Ms. Knight said that all signed forms have been received, except from Dr. Aprahamian. Dr. Aprahamian announced she is currently in Armenia but will send Ms. Knight her signed form electronically.

ITEM 12. EXECUTIVE SESSION

Motion by Dr. Wilson and seconded by Dr. Aprahamian to enter into executive session to discuss personnel matters and to consult with legal counsel concerning legal and contractual matters as permitted by SDCL 1-25-2(1), (3) and (4). Motion passed unanimously by roll call vote.

The board recessed at 9:38 AM for a ten-minute break followed by executive session.

The board reconvened in open session at 10:25 AM.

ITEM 13. REPORT FROM EXECUTIVE SESSION

Chairperson Peterson reported that the board discussed contractual matters and consulted with legal counsel concerning legal and contractual matters. No action was taken.

Motion by Mr. Dykhous and seconded by Mr. Wheeler to approve the executive session report. Motion passed unanimously by roll call vote.

Due to technical difficulties, Ms. Lebrun was not present for this vote. She returned to the session at 10:27 AM.

ITEM 14. REPORT FROM NOMINATING COMMITTEE

Mr. Dykhous said the nominating committee, comprised of Mr. Musick and himself, communicated on May 20, 2020 for the purpose of nominating a slate of officers to the board for year 2021, and the slate of nominations is Casey Peterson as Chairperson, Dana Dykhous as Vice Chairperson, Ron Wheeler as Vice Chairperson, and Patricia Lebrun as Secretary/Treasurer. The nominating committee contacted all the candidates, and each agreed to serve in their capacity for another year.

ITEM 15. ELECTION OF OFFICERS

Mr. Peterson referenced the board packet to illustrate the board member election process, and then called for additional nominations for board officers. Hearing none, Mr. Peterson called for a motion to elect the slate of officers recommended by the nominating committee.

Motion by Mr. Musick and seconded by Dr. Wilson to elect Casey Peterson as Chairperson, Dana Dykhous as Vice Chairperson, Ron Wheeler as Vice Chairperson, and Patricia Lebrun as Secretary/Treasurer. Motion passed unanimously by roll call vote.

ITEM 16. CONFIRM DATE AND TIME OF NEXT MEETING

Chairperson Peterson reminded the board of the next meeting, scheduled for September 17, 2020 at 8:00 AM (MT) in the E&O Conference room and via Zoom.

ITEM 17. PUBLIC COMMENTS

Chairperson Peterson announced he did not receive any public comment request forms. There were no questions from the audience.

ITEM 18. BOARD COMMENTS

Dr. Aprahamian said she is impressed with what the E&O team has done, noting “necessity is the mother of invention” and said it has been amazing to watch the world adjust and do such creative things. She added, the programs for Neutrino Week are quite amazing.

Mr. Dykhous echoed Dr. Aprahamian’s sentiments, noting the terrific work on Neutrino Week and all of the programing. He said this is taking a difficult situation and making it better. He also complimented Sanford Lab’s outstanding and thorough reopening plan in the wake of COVID-19.

Ms. Lebrun said the Neutrino Day activities are outstanding and that the technology component will be used by people in future events to provide access from anywhere in the world. She said Sanford Lab is doing a great job and noticed that challenges are not problematic for the team.

Mr. Musick reiterated previous comments, noting that Mr. Headley's team is doing a great job through all the problems. Mr. Musick also noted that he recently gave a presentation to junior high students including a discussion about the mine and dark matter, and the interest level from 7th and 8th graders was tremendous.

Mr. Wheeler also echoed previous comments, acknowledging the wonderful job done by Mr. Headley and his team during difficult circumstances and said he is impressed with the E&O team and the Neutrino Day planning team.

Dr. Wilson said E&O and virtual Neutrino Day serves as opportunities to reach a global audience and noted the teams' excellent work. He also recognized Mr. Headley's handling of the shutdown, responding to the pandemic crisis and maintaining communication with the lab and experiments, in an impressive manner. Dr. Wilson said, the biannual Neutrino conference of 2020 is currently underway, and Dr. Mike Mooney an assistant professor working with the DUNE project, is a recipient of the DOE Early Career Award this year. Dr. Wilson said that approximately 12 awards are given in the field of physics, and three of those awards are associated with DUNE (two awards), and LBNF (one award) which shows incredible support for the project and the positive feedback has rippled through the collaboration.

Dr. Rankin commented on the pandemic situation and noted that the university systems have also seen that there is no guidebook, and that it has been good to see how Sanford Lab has been handling things with restrictions and reopening. Dr. Rankin recognized the importance of the EPSCoR grant and E&O programming and said that we continue to lose STEM interest from elementary and middle school students and everything we can do for E&O will keep the younger generation engaged. He said we have all learned a great deal about virtual technology, but we should also remember that within 300 miles of SURF, there are a many people who do not have access to broadband technology and are unable to participate in virtual learning. Supporting the governor and government in expanding broadband will make it easier to get the message out.

Mr. Engel noted that he and his team appreciate the opportunity to work with SDSTA and Mr. Headley's team.

Mr. Headley thanked his team for their efforts and said it is exciting to share with the board the amazing and creative ways the team has made programs better, as well as the effort to reopen after pushing through the initial wave of the COVID-19 pandemic and the ability to continue to support science and construction for the future. He said he is proud to be a part of the team and thankful for the board's support and the opportunity to work with Mr. Engel.

Chairperson Peterson said it is amazing how far SDSTA has come since its beginning, approximately 15 years ago. He said even with the recent challenges due to COVID-19, there has been amazing progress for E&O, Neutrino Day, the SURF Foundation, a SURF Institute phase II study, an ethnobotanical garden planning, the cooperative agreement operation, KAJV work and DOE support. Chairperson Peterson said he is proud and satisfied with what is going on and he thanked everyone for their contribution, time and effort.

ITEM 19. ADJOURN

Chairperson Peterson called for a motion to adjourn.

Motion by Mr. Dykhouse and seconded by Mr. Wheeler to adjourn. Motion passed unanimously by roll call vote.

Meeting adjourned at 10:42 AM.

South Dakota Science and Technology Authority Board of Directors
Special Telephonic Meeting Minutes
Friday, July 24, 2020
Lead, South Dakota

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 8:00 a.m. Mountain Time (MT) on Friday, July 24, 2020, via teleconference. The SDSTA office was operating with limited onsite personnel at the time of the board meeting due to the COVID-19 pandemic; a conference number was posted on the agenda with an invitation for members of the public to participate in the meeting by telephone.

MEMBERS OF THE BOARD IN ATTENDANCE BY TELEPHONE

Secretary/Treasurer Patricia Lebrun

Mr. Roger Musick

Chairperson Casey Peterson

Vice-Chairperson Ron Wheeler

Dr. Robert Wilson

Dr. James Rankin, *ex-officio member*

MEMBERS OF THE BOARD ABSENT

Dr. Ani Aprahamian

Vice-Chairperson Dana Dykhouse

SDSTA STAFF IN ATTENDANCE

Mr. Tim Engel, Legal Counsel (by phone)

Mr. Mike Headley, Executive Director (by phone)

Ms. Mandy Knight, Administrative Services Manager

Mr. Will McElroy, Operations Program Manager

Ms. Staci Miller, SURF Foundation Director (by phone)

Mr. Allan Stratman, Engineering Director (by phone)

Mr. Matthew Symonds, Business Services & Contracts Manager (by phone)

Ms. Constance Walter, Communications Director (by phone)

Ms. Natasha Wheeler, Administrative Assistant

ITEM 1. CALL TO ORDER

ITEM 1A. DETERMINATION OF A QUORUM

Chairperson Casey Peterson called the meeting to order at 8:00 a.m. (MT). Chairperson Peterson declared a quorum was present, consisting of board members Ms. Pat Lebrun, Mr. Roger Musick, Chairperson Peterson, Mr. Ron Wheeler and Dr. Bob Wilson. Dr. Ani Aprahamian and Mr. Dana Dykhouse were absent.

ITEM 1B. INTRODUCE GUESTS (LISTENING POST IN LEAD)

The SDSTA office was operating with limited onsite personnel at the time of the board meeting due to the COVID-19 pandemic. Chairperson Peterson asked participants to identify themselves. Ms. Mandy Knight, Mr. Will McElroy and Ms. Natasha Wheeler were present at the listening post in Lead. Mr. Tim Engel, Mr. Mike Headley, Ms. Staci Miller, Mr. Allan Stratman, Mr. Matthew Symonds and Ms. Constance Walter joined by phone.

ITEM 1C. PUBLIC COMMENT FORM

Chairperson Peterson said no public comment forms were submitted before the meeting. He said if anyone on the phone had a public comment, they could address the board during the correlating item on the agenda.

ITEM 2. APPROVE AGENDA

Chairperson Peterson asked for a motion to approve the agenda.

Motion by Ms. Lebrun and seconded by Mr. Musick to approve the agenda as presented. By roll call vote, the motion passed unanimously.

ITEM 3. GENERAL CONFLICT OF INTEREST DISCLOSURE

Mr. Engel asked if any member of the board, who feels they have anything that might be construed to be a conflict of interest, to disclose it verbally.

No conflicts of interest were disclosed.

Dr. Jim Rankin joined the meeting by phone at 8:04 a.m.

ITEM 4. APPROVAL OF AGREEMENT BETWEEN RCS CONSTRUCTION AND SDSTA

Mr. Headley asked for the approval of a contractual agreement between SDSTA and RCS Construction of Rapid City, South Dakota to complete the installation of potable and industrial water lines at the Ross Complex. He prefaced testing of hydrants, water flow and aging infrastructure revealed that not enough water can be provided in case of a fire emergency and Ross plumbing is outdated and both are not up to code. He said updates to Yates and Ross Complex waterlines are line items on the infrastructure improvement plan developed between SDSTA and DOE, and the Ross Complex waterlines have been prioritized due to Long Baseline Neutrino Facility (LBNF) construction. He said that two bids were received for the project, and RCS Construction won with the lowest cost and most acceptable technical bid, at \$1.398 million. Mr. Headley said the final paperwork is being completed with DOE. The project is likely to be done in two phases; work would be completed this fall weather permitting and work would resume in the spring when good weather returns. The contract allows one year for RCS Construction to complete their work, and the contractor has agreed not to charge SDSTA for demobilization and remobilization between weather-phases of the project. Mr. Headley said advantages of working with RCS Construction include their familiarity with the site as current subcontractors to Kiewit-Alberici Joint Venture (KAJV) and their commitment to safety. Mr. Headley also confirmed that DOE would contribute additional funds to the Cooperative Agreement to fund the project.

Motion by Mr. Wheeler and seconded by Ms. Lebrun to approve the agreement between SDSTA and RCS Construction to install the potable and industrial waterlines at the Ross Complex and to authorize the SDSTA Executive Director to sign it. Motion passed unanimously.

ITEM 5. PUBLIC COMMENTS

There were no public comment forms submitted at the beginning of the meeting. Chairperson Peterson asked if there were any other public comments and there were none.

ITEM 6. BOARD COMMENTS

Chairperson Peterson asked if there were any questions or comments from the board. Dr. Wilson offered his congratulations for the professional approach to the contract.

Mr. Wheeler complimented Mr. Headley and the team for the anticipated favorable MOD rate for SDSTA's worker's compensation insurance program.

Mr. Headley added context to Mr. Wheeler's comment and said recent evaluation shows worker's compensation rates are expected to be lower for the upcoming year. Mr. Headley also noted that SDSTA is proud the South Dakota Transportation Commission will name a section of U.S. Highway 18 in honor of Dr. Ernest Lawrence, a South Dakotan who has made a significant impact in physics.

Chairperson Peterson remarked the naming of the highway is great, and thanked Mr. Headley and Mr. Jones on their insight and work on the naming application. He added, although South Dakota was one of the last states to pioneer, it is a pioneer in science, ongoing with the lab.

ITEM 7. ADJOURN

Chairperson Peterson thanked everyone, wished them well and asked for a motion to adjourn.

Motion by Dr. Wilson and seconded by Mr. Musick to adjourn. By roll call vote, the motion passed unanimously.

Meeting adjourned at 8:14 a.m. (MT) on July 24, 2020.

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Conflict of Interest Disclosure—Mr. Tim Engel

Invite members of the board to disclose anything that might be construed to be a conflict of interest relative to their role on the board.

Recommended Action:
Informational.

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Disclosures Under SDCL CH. 3-23—Mr. Tim Engel

Attached is Ron Wheeler's completed annual conflict of interest disclosure under SDCL CH. 3-23.

Recommended Action:

5A. Motion to grant waivers or decline to grant waiver for Mr. Ron Wheeler.

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State Authorities/Boards/Commissions - Annual Disclosure Form

ANNUAL DISCLOSURE FOR AUTHORITY/BOARD/COMMISSION MEMBER
PURSUANT TO SDCL CHAPTER 3-23

THIS IS A PUBLIC DOCUMENT

Name of Member: Ron W. Wheeler

Name of Board, Authority or Commission: South Dakota Science and Technology Authority

The Member shall disclose below any contract in which the Member has an interest or from which the Member derives a direct benefit if the contract is:

- 1. With the state agency to which the Member's board, authority or commission is attached for reporting or oversight purposes and which contract requires the expenditure of government funds;
- 2. With the state and which contract requires the approval of the Member's board, authority or commission and the expenditure of government funds; or
- 3. With a political subdivision of the state if the political subdivision approves the contract and:
 - a. Is under the regulatory oversight of the authority, board, or commission, or
 - b. Is under the regulatory oversight of the agency to which the Member's board, authority or commission is attached.

The Member shall disclose the contract even though no additional authorization is needed from the Member's board, authority or commission to have an interest or derive a benefit from the contract.

The Member shall also identify every entity in which the Member possesses an ownership interest of five percent or greater if:

- 1. The entity receives grant money from the State, either directly or by a pass-through grant or
- 2. The entity contracts with the State or any political subdivision for services.

1. Contracts in which you have an interest pursuant to SDCL Chapter 3-23 and which do not violate any other provision of law - Provide the following for each contract in which you have, or will have, an interest. For further information see SDCL 3-23-2.1 and 3-23-3.1.

Description of the contract	Parties	Description of your interest/role in the contract	Date contract was previously disclosed; if Applicable

add row

contract from which you derive, or will derive, a direct benefit. For more information see SDCL 3-23-2, 3-23-2.2 and 3-23-3.1.

Description of the contract	Parties	Description of the direct benefit	Date contract was Authorized
Mr. Wheeler acts as governmental and external affairs consultant	South Dakota Science and Technology Authority and Ron W. Wheeler	Mr. Wheeler is a party to the contract and will be paid fees and expenses	Last addendum authorized 9/18/18

add row

3. Entities in which you possess an ownership interest of five percent or more that receive grant money from

the State, either directly or by a pass-through grant, or that contract with the State or any political subdivision for services - Provide the following for each such entity. See SDCL 3-23-3.1.

Description of the contract or grant	Party in which you possess the interest	State agency or subdivision

add row

The member shall complete a separate authorization request for any contract identified above that requires

authorization from the Member's board, authority or commission in order for the Member to legally derive a direct benefit.

Signature of Member: _____



Date: 9/2/20

Report from Audit Committee—Ms. Patricia Lebrun

6A. Internal Controls and preaudit meeting update—Ms. Patricia Lebrun, minutes attached.

6B. Appointment of new Audit Committee members—Chairperson Casey Peterson, Audit Committee Charter dated June 19, 2014 attached.

Recommended Action:
Informational.

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SDSTA Audit Committee Meeting

September 8, 2020

Participants:

Ms. Pat Lebrun, SDSTA Board of Director and Audit Committee Chair
Mr. Dana Dykhouse, SDSTA Board of Director/Audit Committee Member
Mr. Mike Headley, SDSTA Executive Director
Mr. Al Schaefer, SD Department of Legislative Audit, Auditor-in-Charge
Ms. Nancy Geary, SDSTA Chief Financial Officer

A pre-audit teleconference was held September 8 with discussions on the following:

1. Greetings were exchanged and discussions were held concerning the upcoming FY2020 audit. Mr. Schaefer noted that this year's audit would be a Federal Compliance Audit. This will entail additional hours but optimistically less hours than last year (recall last year was an additional 80 hours). Hopefully items selected for testing will suffice for the grant compliance as well as other scopes.
2. The target end date is October 6 in order to issue the report in time to submit to the State. Mr. Schaefer will be the only one working on the audit this year. He will start by Friday of this week, or at the latest, Monday, September 14. Mr. Schaefer plans to work off site as much as possible due to the COVID pandemic but would most likely need to be on site approximately two weeks of the audit. Mr. Schaefer is aware of the SDSTA COVID protocols for on site visitors. He will send preliminary questions, requests for Board of Director meeting minutes and detailed procedures via email for Ms. Geary to update and return.
3. Mr. Schaefer noted that the rates for FY2020 have increased to \$74.50/hr.
4. Ms. Lebrun inquired if the results of our Internal Controls Audit had been forwarded to Mr. Schaefer. Mr. Schaefer replied he had the results and would be looking at these in his preliminary audit work scope.
5. Mr. Schaefer asked if anyone had any concerns or if there was any suspected or known fraud. Ms. Lebrun, Mr. Dykhouse and Mr. Headley noted no concerns or suspected fraud. He said if the Board has any issues or concerns, Mr. Schaefer can be contacted at Al.Schaefer@state.sd.us or (605) 390-7666.
6. Discussion continued and Mr. Schaefer said he will forward an engagement letter to be signed by Mr. Headley and Ms. Lebrun. Upon signing, Ms. Geary will scan the engagement letter to Mr. Schaefer. Furthermore, at the end of the audit, the audit committee will meet concerning any findings or recommendations that Mr. Schaefer may have.

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SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

AUDIT COMMITTEE CHARTER

STATEMENT OF MISSION

The mission of the South Dakota Science and Technology Authority (SDSTA) Audit Committee is to be the pro-active steward for oversight of the financial reporting and disclosure process for SDSTA, including the investigation of claimed breaches of ethics, theft, fraud, embezzlement and reports of whistle-blowers. Our responsibility is to the SDSTA Board of Directors to report independently on the results of the oversight so as to assist in maintaining and enhancing the quality of the financial reporting. The Audit Committee is committed to communication between and among directors, the external auditor and Chief Financial Officer (CFO).

A. The Audit Committee has the following responsibilities and duties:

1. Appointment

- Annually be appointed by the SDSTA Board of Directors at their annual meeting in June.
- At least one member will be deemed a “financial expert,” as defined by applicable law and regulation.

2. Review

- Annually review and update this Charter.
- Annually determine the independence of Audit Committee members through a certification by the SDSTA Board of Director’s Chairperson.
- Review the SDSTA’s annual financial statements and any reports or other financial information submitted to or from any governmental body, or the public, including any certification, report, opinion or review rendered by the external auditor or the SDSTA CFO.
- Review any report or memo or other communication from Federal and State regulators and reviewers, and attend as many entrance and exit conferences as possible.

3. External Auditors/CFO/Independent Counsel/Other Advisors

- The Audit Committee shall have the independent authority to engage any legal counsel or other advisors it deems necessary to carry out its duties.
- Periodically consult with the external auditor out of the presence of management about internal controls and the fullness and accuracy of the company’s financial statements.
- Make the selection, retention, and review the performance of, the external auditor, considering independence and effectiveness and approve the fees paid to the external auditor as well as the proposed fee. On an annual basis, the Audit Committee should review and discuss with the external auditor all significant relationships the external auditor has with the company to determine the auditor’s independence and consider the appropriateness of the non-audit services prior to their engagement.
- Periodically meet with the CFO on the results of exams, and be available to CFO for appropriate communications at any time they desire the meeting.

4. Financial Reporting Process

- In consultation with the external auditor, review the integrity of the SDSTA’s financial reporting processes.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY AUDIT COMMITTEE CHARTER

- Consider the external auditor's judgments about the quality and appropriateness of the SDSTA's accounting principles, as applied in its financial reports and as promulgated by the Governmental Accounting Standards Board.
- Consider and forward to the SDSTA Board of Directors, if appropriate, recommendations for major changes to the SDSTA's auditing and accounting principles and practices as suggested by the external auditor, management or the CFO.
- Establish regular and separate systems of reporting to the Audit Committee by management and the external auditor regarding any significant judgments made in management's preparation of the financial statements and the Audit Committee's view of each as to appropriateness of such judgments.
- Following completion of the annual audit, review separately with management and the external auditor any significant difficulties encountered during the course of the audit, including any restrictions on the scope of work, or access to required information.
- Review and resolve any significant disagreement among management and the external auditor in connection with the preparation of the financial statements. Review in detail the passed audit adjustments and the materiality levels used by the external auditor, and the impact of Management's estimates used in the financial statement preparation.
- Review with the external auditor and management the extent to which changes or improvements in financial or accounting practices, as approved by the Audit Committee in prior reports or meetings, have been implemented.

5. Ethical and Legal Compliance

- Establish, review and update periodically a Conflict of Interest Policy and ensure that management has established a system to enforce this Policy.
- Review management's monitoring of compliance with the SDSTA's Conflict of Interest Policy, and verify that management has the proper review system in place to ensure that financial statements, reports, and other financial information disseminated to governmental organizations, and the public, satisfy legal requirements.
- Review with SDSTA's retained legal counsel any legal matter that could have a significant impact on the SDSTA's financial statements.
- Periodically review individual committee member education and obtain resources, seminars and materials to keep the level of member's education current.
- Perform any other activities consistent with this Charter, the SDSTA's By-Laws and governing law, as the Audit Committee or the SDSTA Board of Directors deems necessary or appropriate.

6. Reporting

In order to facilitate the proper execution of its duties and responsibilities, the Audit Committee shall conduct its reviews and investigations in a confidential manner. The Audit Committee shall report to the SDSTA Board the results of the Financial Reporting Process, consultations with External Auditors, the CFO or other Advisors, or any other issues they deem important for the SDSTA Board to meet its responsibilities. These reports shall include, but not be limited to, the results of the annual external audit or any internal audit on financial reports or compliance (including difficulties or disagreements encountered, if any, past

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

AUDIT COMMITTEE CHARTER

adjustments, materiality defined by the auditor, any legal matter having a material impact on the report, management letter comments, etc.), the integrity of the financial reporting system, the appropriateness of the accounting principles applied to the financial reports, the status of internal controls, any suggested change to any of the above systems the Audit Committee thinks should be made, any significant report or communication from any other matter that the Audit Committee deems critical information needed by the SDSTA Board. To the extent permitted by applicable law, the Audit Committee's reports to the Board of Directors shall be delivered in closed session.

The Audit Committee shall strive to provide the Board with the information it needs to manage the reporting and accounting for the SDSTA as well as utilize the reports to manage all of the other risks it faces. These reports will be made when information is received and available. The Annual Schedule below outlines some of the reporting dates anticipated.

7. Budget Process

The Audit Committee will meet with the CFO in March to establish the annual budget for the Audit Committee to cover costs for audit fees, legal fees, consulting fees, continuing education travel and costs and miscellaneous costs.

B. Annual Schedule

The Audit Committee will meet at its discretion but the following is a guideline for business to be conducted during the year:

December-January – Meet with external auditors to discuss preliminary audit findings, letters to management, passed adjustments, materiality, management estimates, and quality and appropriateness of accounting principles.

March-June – Present audit findings, letter of comments and other appropriate information to the SDSTA's Board of Directors at SDSTA annual meeting. Meet to update issues on hiring other outside auditors for review, as deemed necessary, of such areas as EDP, compliance, etc.

September – Request proposal for external audit. Meet with CFO.

October/November/December – Meet with CFO to review any issues regarding the audit. Meet to engage external financial auditor on entrance conference. Review all SDSTA regulators' reports (State and/or Federal). Certify as to committee member's independence.

C. Limitations on the Committee's Role:

While the Audit Committee has the responsibilities and powers as stated above, it is not the Committee's duty to audit the SDSTA's financial statements or to determine that the SDSTA's financial statements are complete and accurate in accordance with generally accepted accounting principles (GAAP), as promulgated by the Governmental Accounting Standards Board. These are the responsibilities of management and the independent auditors.

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Financial Report—Mr. Mike Headley

Financial Report:

7A. Financial Summaries for August 2020, attached.

7B. South Dakota Investment Council Letter, attached. (see suggested motion below)

7C. Fiscal Year End Inventory Listing, attached.

7D. Fiscal Year End Board Per Diem Listing, attached.

See suggested motion.

Recommended Action:

*7B. Motion to continue the interest earning accrual at 1% for fiscal year 2020 or as discussed.
Motion to accept the Financial Report as presented.*

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DIVISION: ALL

BALANCE SHEET

ASSETS

	AS OF
	08/31/20

CURRENT ASSETS	
First Interstate Checking	\$ 3,178,551.08
First Interstate Other	5,588.19

Total in Local Checking	3,184,139.27
SD Treas: Indemnification	7,680,475.00
SD Treas: Mine Closure	1,497,441.53
SD Treas: Operating	815,881.93
SD Treas: Sanford Gift #2	7,989.70
SD Treas: Spec Sess - Lab	4,307,689.95
SD Treas: Experiments	919,001.75

Total with SD Treasurer	15,228,479.86
Billed A/R	2,015,174.33
Unbilled A/R	560,027.56
Other A/R	371,304.56
Inventory - Supplies	2,422,521.41
Inventory - Warehouse	28,256.08
Other Current Assets	705,797.98

Total Current Assets	24,515,701.05
FIXED ASSETS	
Land, Underground & Other	12,633,473.13
Bldgs & Infrastructure	9,707,365.56
Improvements	64,637,443.82
Computer Equipment	570,932.90
Equipment & Fixtures	11,000,464.67
DOE Property Transfer	290,484.17
Accum Depr & Amort	(18,509,641.35)
DOE Prop. Accum Deprec.	(8,617.16)

Total Fixed Assets	80,321,905.74
OTHER ASSETS	
Work in Process	1,200,888.69
Pension Deferred Outflows	2,995,814.75
Xenon Purchased	8,934,350.39

Total Other Assets	13,131,053.83
	=====
TOTAL ASSETS	\$ 117,968,660.62
	=====

DIVISION: ALL

BALANCE SHEET

LIABILITIES & EQUITY

AS OF
08/31/20

CURRENT LIABILITIES

Accounts Payable	\$	1,668,718.11
Other Payables		20,354.57

Total Accounts Payable		1,689,072.68
Accrued Payroll Liab		1,659,380.22

Total Current Liabilities		3,348,452.90

OTHER LIABILITIES

LT Xenon Notes Payable		6,000,000.00
Pension Deferred Inflows		1,266,585.88

Total Other Liabilities		7,266,585.88

EQUITY

Restricted: Indemnificati		7,500,000.00
Restricted: Lab		4,188,598.00
Restricted: Mine Closure		1,497,441.53
Restricted: Sanford Gift2		6,991.97
Restricted: Pension		1,729,228.87
Restricted: Experim. Int.		729,305.00
Restricted: Foundation		897.66

Total Restricted Funds		15,652,463.03
Investment in Gen FA		80,321,905.74
Unrestricted Funds		11,379,253.07

Total Equity		107,353,621.84

TOTAL LIABILITIES & EQUITY

=====

\$ 117,968,660.62

=====

ALL

STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/20

	YR-TO-DATE
REVENUE	
DOE Subcontracts	\$ 4,515,543.03
NSF/NASA Subcontracts	865.68
State Revenue	-
Checking Interest	240.33
Interest Income	25,754.00

TOTAL REVENUE	4,542,403.04
DIRECT COSTS	
Direct Labor	1,214,875.33
Board of Directors	750.00
Capital Outlay >\$5K	350,365.02
Contractual Svcs	333,206.74
Inventory	20,747.67
Supplies	177,733.15
Travel - Domestic	926.32
Travel - Foreign	-
Utilities	312,599.69
Other Direct Costs	2,493.70
Unallow/Unbill Costs	50,915.96

TOTAL DIRECT COSTS	2,464,613.58
INDIRECT COSTS	
Fringe Benefits	957,710.11
Overhead	1,420,161.86

TOTAL INDIRECT COSTS	2,377,871.97

GROSS PROFIT/LOSS ()FROM OPERATIONS	(300,082.51)

OTHER INCOME	
Water Treatment	73,757.91
Miscellaneous Income	825.49
Other Operating Income	6,693.16

TOTAL OTHER INCOME	81,276.56
OTHER EXPENSES	
Other Unallowable Expenses	8,617.16
Misc. Expenses & Donations	-
Loss (Gain) on Sale of Fixed Assets	-
Reclass Incr Net Assets	(383,892.54)

TOTAL OTHER EXPENSES	(375,275.38)
	=====
NET INCOME/LOSS ()	\$ 156,469.43
	=====

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

	AS OF 08/31/20	AS OF 08/31/19	\$ CHANGE	% CHANGE
CURRENT ASSETS				
First Interstate Checking	\$ 3,178,551.08	\$ 2,172,439.35	\$ 1,006,111.73	46.31%
First Interstate Other	5,588.19	541.72	5,046.47	931.56%
<hr/>				
Total in Local Checking	3,184,139.27	2,172,981.07	1,011,158.20	46.53%
SD Treas: Indemnification	7,680,475.00	7,656,569.13	23,905.87	0.31%
SD Treas: Mine Closure	1,497,441.53	1,462,524.66	34,916.87	2.39%
SD Treas: Operating	815,881.93	594,166.11	221,715.82	37.32%
SD Treas: Sanford	-	0.40	(0.40)	-100.00%
SD Treas: Sanford Gift #2	7,989.70	29,680.79	(21,691.09)	-73.08%
SD Treas: Spec Sess - Lab	4,307,689.95	6,101,751.86	(1,794,061.91)	-29.40%
SD Treas: SB196 Transfer		0.27	(0.27)	-100.00%
SD Treas: Experiments	919,001.75	1,341,841.08	(422,839.33)	-31.51%
<hr/>				
Total with SD Treasurer	15,228,479.86	17,186,534.30	(1,958,054.44)	-11.39%
Billed A/R	2,015,174.33	3,395,882.78	(1,380,708.45)	-40.66%
Unbilled A/R	560,027.56	(14,727.86)	574,755.42	-3902.50%
Other A/R	371,304.56	382,296.84	(10,992.28)	-2.88%
Inventory - Supplies	2,422,521.41	2,309,679.01	112,842.40	4.89%
Inventory - Warehouse	28,256.08	28,955.50	(699.42)	-2.42%
Other Current Assets	705,797.98	423,077.23	282,720.75	66.82%
<hr/>				
Total Current Assets	24,515,701.05	25,884,678.87	(1,368,977.82)	-5.29%
FIXED ASSETS				
Land, Underground & Other	12,633,473.13	12,633,473.13	-	0.00%
Bldgs & Infrastructure	9,707,365.56	10,079,478.68	(372,113.12)	-3.69%
Improvements	64,637,443.82	62,907,485.67	1,729,958.15	2.75%
Computer Equipment	570,932.90	458,724.17	112,208.73	24.46%
Equipment & Fixtures	11,000,464.67	10,876,194.36	124,270.31	1.14%
DOE Property Transfer	290,484.17	-	290,484.17	100.00%
Accum Depr & Amort	(18,509,641.35)	(16,668,833.06)	(1,840,808.29)	11.04%
DOE Prop. Accum Deprec.	(8,617.16)	-	(8,617.16)	100.00%
<hr/>				
Total Fixed Assets	80,321,905.74	80,286,522.95	35,382.79	0.04%
OTHER ASSETS				
Work in Process	1,200,888.69	1,173,842.61	27,046.08	2.30%
Pension Deferred Outflows	2,995,814.75	3,943,908.40	(948,093.65)	-24.04%
Xenon Purchased	8,934,350.39	8,164,350.39	770,000.00	9.43%
<hr/>				
Total Other Assets	13,131,053.83	13,282,101.40	(151,047.57)	-1.14%
<hr/>				
TOTAL ASSETS	\$ 117,968,660.62	\$ 119,453,303.22	\$ (1,484,642.60)	-1.24%

DIVISION: ALL

COMPARATIVE BALANCE SHEET

LIABILITIES & EQUITY

	AS OF 08/31/20	AS OF 08/31/19	\$ CHANGE	% CHANGE
<hr/>				
CURRENT LIABILITIES				
Accounts Payable	\$ 1,668,718.11	\$ 1,409,027.19	259,690.92	18.43%
Other Payables	20,354.57	4,862.59	15,491.98	318.60%
	-----	-----	-----	-----
Total Accounts Payable	1,689,072.68	1,413,889.78	275,182.90	19.46%
Accrued Payroll Liab	1,659,380.22	1,361,311.49	298,068.73	21.90%
	-----	-----	-----	-----
Total Current Liabilities	3,348,452.90	2,775,201.27	573,251.63	20.66%
OTHER LIABILITIES				
LT Xenon Notes	6,000,000.00	6,000,000.00	-	0.00%
Pension Deferred Inflows	1,266,585.88	783,421.31	483,164.57	61.67%
	-----	-----	-----	-----
Total Other Liabilities	7,266,585.88	6,783,421.31	483,164.57	7.12%
TOTAL LIABILITIES	10,615,038.78	9,558,622.58	1,056,416.20	11.05%
EQUITY				
Restricted: Indemnificati	7,500,000.00	7,500,000.00	-	0.00%
Restricted: Lab	4,188,598.00	6,101,751.86	(1,913,153.86)	-31.35%
Restricted: Mine Closure	1,497,441.53	1,462,524.66	34,916.87	2.39%
Restricted: Sanford Gift2	6,991.97	29,680.79	(22,688.82)	-76.44%
Restricted: Pension	1,729,228.87	3,160,487.09	(1,431,258.22)	-45.29%
Restricted: Experim. Int.	729,305.00	1,188,667.00	(459,362.00)	-38.65%
Restricted: Foundation	897.66	-	897.66	100.00%
	-----	-----	-----	-----
Total Restricted Funds	15,652,463.03	19,443,111.40	(3,790,648.37)	-19.50%
Investment in Gen FA	80,321,905.74	80,286,522.95	35,382.79	0.04%
Unrestricted Funds	11,379,253.07	10,165,046.29	1,214,206.78	11.94%
	-----	-----	-----	-----
TOTAL EQUITY	107,353,621.84	109,894,680.64	(2,541,058.80)	-2.31%
TOTAL LIABILITIES & EQUITY	=====	=====	=====	=====
	\$ 117,968,660.62	\$ 119,453,303.22	\$ (1,484,642.60)	-1.24%
	=====	=====	=====	=====

COMPARATIVE STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/20

	YEAR TO DATE	PRIOR YEAR TO DATE	\$ CHANGE	% CHANGE
REVENUE				
DOE Subcontracts	\$ 4,515,543.03	\$ 4,485,476.05	\$ 30,066.98	0.67%
NSF/NASA Subcontracts	865.68	4,445.43	(3,579.75)	-80.53%
State Revenue	-	2,500,000.00	(2,500,000.00)	-100.00%
Checking Interest	240.33	522.54	(282.21)	-54.01%
Interest Income	25,754.00	29,147.46	(3,393.46)	-11.64%
	-----	-----	-----	-----
TOTAL REVENUE	4,542,403.04	7,019,591.48	(2,477,188.44)	-35.29%
DIRECT COSTS				
Direct Labor	1,214,875.33	1,164,239.95	50,635.38	4.35%
Board of Directors	750.00	300.00	450.00	150.00%
Capital Outlay >\$5K	350,365.02	106,142.57	244,222.45	230.09%
Contractual Svcs	333,206.74	610,125.02	(276,918.28)	-45.39%
Inventory	20,747.67	36,540.46	(15,792.79)	-43.22%
Supplies	177,733.15	313,985.23	(136,252.08)	-43.39%
Travel - Domestic	926.32	10,301.44	(9,375.12)	-91.01%
Travel - Foreign	-	27,303.96	(27,303.96)	-100.00%
Utilities	312,599.69	297,347.42	15,252.27	5.13%
Other Direct Costs	2,493.70	9,361.61	(6,867.91)	-73.36%
Unallow/Unbill Costs	50,915.96	64,526.95	(13,610.99)	-21.09%
	-----	-----	-----	-----
TOTAL DIRECT COSTS	2,464,613.58	2,640,174.61	(175,561.03)	-6.65%
INDIRECT COSTS				
Fringe Benefits	957,710.11	880,007.04	77,703.07	8.83%
Overhead	1,420,161.86	1,193,882.53	226,279.33	18.95%
	-----	-----	-----	-----
TOTAL INDIRECT COSTS	2,377,871.97	2,073,889.57	303,982.40	14.66%
	-----	-----	-----	-----
GROSS PROFIT/LOSS ()	(300,082.51)	2,305,527.30	(2,605,609.81)	517.81%
	-----	-----	-----	-----
OTHER INCOME				
Water Treatment	73,757.91	65,823.39	7,934.52	12.05%
Miscellaneous Income	825.49	5,588.09	(4,762.60)	-85.23%
Other Operating Income	6,693.16	633.19	6,059.97	957.05%
	-----	-----	-----	-----
TOTAL OTHER INCOME	81,276.56	72,044.67	9,231.89	12.81%
OTHER EXPENSES				
Loss (Gain) on Sale of FA	-	-	-	0.00%
Other Unallowable Expense	8,617.16	-	-	100.00%
Reclass Incr Net Assets	(383,892.54)	(266,775.06)	(117,117.48)	43.90%
	-----	-----	-----	-----
TOTAL OTHER EXPENSES	(375,275.38)	(266,775.06)	(108,500.32)	40.67%
	=====	=====	=====	=====
NET INCOME/LOSS ()	\$ 156,469.43	\$ 2,644,347.03	\$ (2,487,877.60)	-94.08%
	=====	=====	=====	=====

South Dakota Science & Technology Authority
Available Resources
8/31/2020

Cash Total Checking	\$ 3,178,551
Cash With State Treasurer	<u>\$ 15,228,480</u>
Total Cash	\$ 18,407,031
Less: Restricted Funds	
Indemnification/Mine Closure/Special Session Lab	\$ (13,485,606)
Experiments (Xenon, Interest,Infrastructure)	<u>\$ (919,002)</u>
Total Cash Available for Infrastructure Upgrades and Authority Operations	\$ 4,002,423
Plus: Accounts Receivable Billed	\$ 2,015,174
Accounts Receivable Unbilled	\$ 560,028
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	<u>\$ (999,235)</u>
(not including accts. pay. for Experiment funding)	
Available Cash and Receivables	<u><u>\$ 5,578,389</u></u>

SDSTA Operating Budget Summary FY2021
Actual vs Budget
Aug. 2021 & YTD

	August 2020	Budget	\$ Over/Under Budget	% of Budget	Actual YTD	YTD Budget	\$ Over/Under Budget	% of Budget	% Remaining
									100%
SDSTA (Authority) Direct Charges									
Board of Directors	\$24,972.00	\$22,166.00	-\$2,806.00	112.66%	\$45,328.00	\$44,332.00	-\$996.00	102.25%	-2.25%
Executive Office	\$22,922.00	\$29,734.00	\$6,812.00	77.09%	\$37,780.00	\$59,468.00	\$21,688.00	63.53%	36.47%
Science Center E & O	\$12,234.00	\$14,000.00	\$1,766.00	87.39%	\$30,016.00	\$34,500.00	\$4,484.00	87.00%	13.00%
Science Liaison	-\$307.00	\$0.00	\$307.00	100.0%	\$603.00	\$0.00	-\$603.00	100.00%	0.00%
Subtotal	\$59,821.00	\$65,900.00	\$6,079.00	90.78%	\$113,727.00	\$138,300.00	\$24,573.00	82.23%	17.77%
Federal/State Funding - Direct Charges									
Fermi P.O.#849934 Prof. Services	\$18,838.00	\$25,000.00	\$6,162.00	75.35%	\$44,217.00	\$58,972.00	\$14,755.00	74.98%	25.02%
Fermi C#630223 Ross Rehab	\$19,589.00	\$26,095.00	\$6,506.00	75.07%	\$40,458.00	\$51,095.00	\$10,637.00	79.18%	20.82%
Fermi C#654406 Ross Logist.Supp	\$169,151.00	\$199,935.00	\$30,784.00	84.6%	\$363,164.00	\$409,935.00	\$46,771.00	88.59%	11.41%
Fermi Misc. Contracts	\$0.00	\$2,000.00	\$2,000.00	0.0%	\$1,255.00	\$4,000.00	\$2,745.00	31.38%	68.63%
Office of Science Coop.Agree	\$986,728.00	\$1,319,796.00	\$333,068.00	74.76%	\$1,886,729.00	\$2,682,852.00	\$796,123.00	70.33%	29.67%
LBNL SIGMA-V C#7371823	\$13,134.00	\$7,500.00	-\$5,634.00	175.12%	\$15,246.00	\$11,000.00	-\$4,246.00	138.60%	-38.60%
LBNL LZExp. Operat.C#7525117	\$67,556.00	\$85,000.00	\$17,444.00	79.48%	\$226,496.00	\$245,100.00	\$18,604.00	92.41%	7.59%
MJD (Majorana) ORNL144149	\$1,804.00	\$2,000.00	\$196.00	90.2%	\$3,639.00	\$4,000.00	\$361.00	90.98%	9.03%
BHSU-UGCampus Gen.Serv.	\$0.00	\$200.00	\$200.00	0.0%	\$0.00	\$400.00	\$400.00	0.00%	100.00%
SDSM&Tech CASPAR Gen.Serv.	\$390.00	\$500.00	\$110.00	78.0%	\$558.00	\$1,000.00	\$442.00	55.80%	44.20%
* Kiewit/Alberici JV	\$4,313.00	\$4,313.00	\$0.00	100.0%	\$4,313.00	\$4,313.00	\$0.00	0.00%	0.00%
Subtotal	\$1,281,503.00	\$1,672,339.00	\$390,836.00	76.63%	\$2,586,075.00	\$3,472,667.00	\$886,592.00	74.47%	25.53%
Indirect Expenses									
Indirect Charges Personnel	\$410,186.00	\$422,184.00	\$11,998.00	97.16%	\$804,899.00	\$887,370.00	\$82,471.00	90.71%	9.29%
Indirect Charges Other	\$459,783.00	\$537,324.00	\$77,541.00	85.57%	\$894,635.00	\$1,105,884.00	\$211,249.00	80.90%	19.10%
Subtotal	\$869,969.00	\$959,508.00	\$89,539.00	90.67%	\$1,699,534.00	\$1,993,254.00	\$293,720.00	85.26%	14.74%
Totals	\$2,211,293.00	\$2,697,747.00	\$486,454.00	81.97%	\$4,399,336.00	\$5,604,221.00	\$1,204,885.00	78.50%	21.50%
* Private Corporations (Commercial Group)									

SDSTA CAPEX Budget Summary FY21
Actual vs Budget
Aug. YTD FY2021

<u>Budget Area</u>	<u>Actual Month</u>	<u>FY2021 Monthly Budget</u>	<u>\$ Over/Under Budget</u>	<u>% of Budget</u>	<u>Actual YTD</u>	<u>FY2021 YTD Budget</u>	<u>\$ Over/Under Budget</u>	<u>% of Budget</u>	<u>% Remaining</u>
									100.00%
Operational CAPEX	\$ 701,815.97	\$ 711,979.00	\$ 10,163.03	98.57%	\$ 1,200,888.69	\$ 5,068,074.00	\$ 3,867,185.31	23.70%	76.30%
TOTAL CAPEX	\$ 701,815.97	\$ 711,979.00	\$ 10,163.03	98.57%	\$ 1,200,888.69	\$ 5,068,074.00	\$ 3,867,185.31	23.70%	76.30%

SD Science & Technology Authority
Operational CAPEX Budget
YTD FY2021 Actual vs Budget

Project #	Project Description	Aug. YTD FY2021	FY2021 Budget	\$ Over/UnderBudget	% of Budget	% Remaining
						100%
CAP2014-01	Sanford Visitor Center Sign/Display	\$ -	\$ 54,000.00	\$ 54,000.00	0.00%	100.00%
CAP2016-03	LZ Xenon Gas	\$ 23,957.50	\$ 234,000.00	\$ 210,042.50	10.24%	89.76%
CAP2019-01	Maintenance Support Facility	\$ 1,176,931.19	\$ 4,780,074.00	\$ 3,603,142.81	24.62%	75.38%
	Totals	\$ 1,200,888.69	\$ 5,068,074.00	\$ 3,867,185.31	23.70%	76.30%

SD Science & Technology Authority
Operational CAPEX Budget
Monthly Actual vs Budget

Project #	Project Description	August FY2021	Budget	\$ Over/UnderBudget	% of Budget
CAP2014-01	Sanford Visitor Center Displays/Monitoring	\$ -	\$ -	\$ -	
CAP2016-03	LZ Xenon Gas	\$ 11,978.75	\$ 11,979.00	\$ 0.25	100.00%
CAP2019-01	Maintenance Support Facility	\$ 689,837.22	\$ 700,000.00	\$ 10,162.78	98.55%
	Monthly Totals	\$ 701,815.97	\$ 711,979.00	\$ 10,163.03	98.57%

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SOUTH DAKOTA INVESTMENT COUNCIL

4009 West 49th Street, Suite 300

Sioux Falls, SD 57106-3784 USA

Phone: (605) 362-2820

August 1, 2020

Interest Proration Participating Agencies:

You recently received your 2020 interest proration voucher this week by e-mail. This represents interest on each agency fund's average balance for fiscal year 2020 as determined by SDCL 4-5-30. The Cash Flow Fund received \$37,895,268 of interest and net gains for the fiscal year on an average balance of \$1.633 billion. The rate (net of fees) for fiscal year 2020, payable in fiscal year 2021, is 2.3%.

Please be advised, if interest rates on money market funds remain low, the proration rate for next fiscal year is expected to be between 1% and 2%.

If you have any questions regarding the calculation, please call Tiffany Ripperda (605-773-2138) at the Bureau of Finance and Management or Sherry Nelson at the South Dakota Investment Council.

Sincerely,

Matthew L. Clark
State Investment Officer

MLC/szn
Enclosure

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SD Science & Technology Authority

Year to Date Reconciliation - 7/1/2019 through 6/30/2020

June 30, 2020

Year to Date 7/1/2019 through 6/30/2020

Cost of Fixed Assets

Accumulated Depreciation

000 - SD Science & Technology Authority

Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
110 - Automobiles										
77 2003 Chevy Astro AWD	7/15/2008	7/15/2008	9,079.90			9,079.90	8,172.00			8,172.00
78 2003 Ford F250 63-1658	1/16/2009	1/16/2009	11,890.17			11,890.17	10,700.97			10,700.97
79 2000 Ford F150 V8 Whit	2/16/2009	2/16/2009	7,273.42			7,273.42	6,545.72			6,545.72
81 2001 Dodge W/Maintena	2/25/2009	2/25/2009	12,329.88		(12,329.88)	0.00	11,096.90		(11,096.90)	0.00
347 1999 Chevy Suburban W	8/11/2009	8/11/2009	6,618.17		(6,618.17)	0.00	5,956.35		(5,956.35)	0.00
348 2001 Dodge 2500 W/Mai	8/12/2009	8/12/2009	8,906.71			8,906.71	8,016.00			8,016.00
349 2004 Ford Explorer Sport	6/4/2010	6/4/2010	13,306.83			13,306.83	11,976.00			11,976.00
570 2009 Chevy G3500 Van	9/8/2014	9/8/2014	16,900.00			16,900.00	10,503.00	2,173.00		12,676.00
653 2011 Chevy3500Stakebe	11/21/2016	11/21/2016	22,657.45			22,657.45	7,525.00	2,913.00		10,438.00
702 2002 Chevy 2500 Truck l	6/17/2019	6/17/2019	10,000.00			10,000.00		1,286.00		1,286.00
712 2018 Dodge Ram Plow T	11/25/2019	11/25/2019		40,243.00		40,243.00		3,018.00		3,018.00
713 2019 DodgeRam-W-VPlc	12/19/2019	12/19/2019		48,210.00		48,210.00		3,099.00		3,099.00
722 2020 Ford Passenger Van	4/1/2020	4/1/2020		48,869.00		48,869.00		1,571.00		1,571.00
			118,962.53	137,322.00	(18,948.05)	237,336.48	80,491.94	14,060.00	(17,053.25)	77,498.69
120 - Building										
10 Ross Hoist Room	4/14/2006	4/14/2006	436,796.20			436,796.20	123,743.72	8,736.00		132,479.72
14 Ross Head Frame & Crus	4/14/2006	4/14/2006	421,551.65			421,551.65	119,423.90	8,431.00		127,854.90
19 Yates Head Frame & Cru	4/14/2006	4/14/2006	496,154.18			496,154.18	140,558.06	9,923.00		150,481.06
24 Mine Office - Admin Bld	4/14/2006	4/14/2006	461,316.99			461,316.99	130,686.23	9,226.00		139,912.23
25 Yates Hoist/MG Set Roo	4/14/2006	4/14/2006	797,826.88			797,826.88	226,026.43	15,957.00		241,983.43
26 Ross Substation Building	4/14/2006	4/14/2006	13,615.43			13,615.43	3,854.12	272.00		4,126.12
27 Ross Boiler	4/14/2006	4/14/2006	23,236.99			23,236.99	6,585.57	465.00		7,050.57
28 Ross Core Shed	4/14/2006	4/14/2006	6,785.02			6,785.02	1,925.17	136.00		2,061.17
29 Ross Dry	4/14/2006	4/14/2006	142,961.96			142,961.96	40,498.27	2,859.00		43,357.27
30 Ross Pipe Shop	4/14/2006	4/14/2006	50,830.92			50,830.92	14,404.05	1,017.00		15,421.05
31 LHD Warehouse	4/14/2006	4/14/2006	51,988.23			51,988.23	14,730.45	1,040.00		15,770.45
32 Ross Tramway Shed	4/14/2006	4/14/2006	68,757.90			68,757.90	19,477.31	1,375.00		20,852.31
33 Ross Air Tanks	4/14/2006	4/14/2006	7,760.79			7,760.79	2,196.45	155.00		2,351.45
34 Ross Ramp	4/14/2006	4/14/2006	7,091.37			7,091.37	2,010.69	142.00		2,152.69
35 Oro Hondo Fan Building	4/14/2006	4/14/2006	6,807.71			6,807.71	1,927.06	136.00		2,063.06
36 Oro Hondo Substation Bt	4/14/2006	4/14/2006	6,807.71			6,807.71	1,927.06	136.00		2,063.06

000 - SD Science & Technology Authority

Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
120 - Building										
37 Shaft Heater Room @ #5	4/14/2006	4/14/2006	6,240.40			6,240.40	1,769.81	125.00		1,894.81
38 Tramway Roundhouse	4/14/2006	4/14/2006	7,624.64			7,624.64	2,155.11	152.00		2,307.11
39 Main Warehouse	4/14/2006	4/14/2006	142,224.46			142,224.46	40,286.84	2,844.00		43,130.84
41 Bottle Gas Storage	4/14/2006	4/14/2006	20,967.75			20,967.75	5,936.55	419.00		6,355.55
42 Tramway	4/14/2006	4/14/2006	177,908.22			177,908.22	50,399.19	3,558.00		53,957.19
43 Iron House	4/14/2006	4/14/2006	60,044.02		(60,044.02)	0.00	17,011.48	300.00	(17,311.48)	0.00
44 Machine Shop	4/14/2006	4/14/2006	257,142.32		(257,142.32)	0.00	72,849.13	1,286.00	(74,135.13)	0.00
45 Foundry	4/14/2006	4/14/2006	162,810.11			162,810.11	46,121.56	3,256.00		49,377.56
46 Battery Repair Building	4/14/2006	4/14/2006	26,141.62			26,141.62	7,407.51	523.00		7,930.51
47 Bit Shop	4/14/2006	4/14/2006	5,446.17			5,446.17	1,543.65	109.00		1,652.65
48 Paint Shop	4/14/2006	4/14/2006	7,715.41			7,715.41	2,182.67	154.00		2,336.67
50 East Substation Building	4/14/2006	4/14/2006	6,807.71			6,807.71	1,927.06	136.00		2,063.06
51 Wash Rack	4/14/2006	4/14/2006	7,148.10			7,148.10	2,025.41	143.00		2,168.41
52 Steady Head Tank	4/14/2006	4/14/2006	8,271.37			8,271.37	2,338.98	165.00		2,503.98
53 Yates Safety & Dry	4/14/2006	4/14/2006	215,259.87			215,259.87	60,980.46	4,305.00		65,285.46
54 Yates Power Substation E	4/14/2006	4/14/2006	11,436.96			11,436.96	3,242.66	229.00		3,471.66
55 Yates Bosses Office	4/14/2006	4/14/2006	6,490.02			6,490.02	1,840.60	130.00		1,970.60
57 Yates Lamp Room	4/14/2006	4/14/2006	10,620.03			10,620.03	3,004.61	212.00		3,216.61
58 Yates Dust Collector	4/14/2006	4/14/2006	3,630.78			3,630.78	1,032.43	73.00		1,105.43
59 Yates Sawmill	4/14/2006	4/14/2006	33,947.79			33,947.79	9,617.74	679.00		10,296.74
60 Used Oil Storage Tank	4/14/2006	4/14/2006	2,042.31			2,042.31	580.12	41.00		621.12
61 Yates Cooling Tower	4/14/2006	4/14/2006	5,446.17			5,446.17	1,543.65	109.00		1,652.65
62 Yates Compressor	4/14/2006	4/14/2006	173,180.53			173,180.53	49,065.38	3,464.00		52,529.38
63 Motor Repair Shop	4/14/2006	4/14/2006	17,473.13		(17,473.13)	0.00	4,945.46	87.00	(5,032.46)	0.00
64 WW Influent Building	4/14/2006	4/14/2006	645,487.44			645,487.44	182,867.04	12,910.00		195,777.04
65 WW Lab/Fishouse	4/14/2006	4/14/2006	134,476.55			134,476.55	38,101.47	2,690.00		40,791.47
66 WW Mechanical Buildin;	4/14/2006	4/14/2006	727,249.18			727,249.18	206,027.53	14,545.00		220,572.53
67 WW Warehouse	4/14/2006	4/14/2006	174,012.66			174,012.66	49,294.70	3,480.00		52,774.70
68 WW Sandfilter Building	4/14/2006	4/14/2006	917,399.02			917,399.02	259,896.40	18,348.00		278,244.40
338 Building Closing Costs	1/31/2007	1/31/2007	63,820.42			63,820.42	16,354.67	1,276.00		17,630.67
73 WW Protec Building 56X	12/1/2008	12/1/2008	64,632.77			64,632.77	27,358.10	2,585.00		29,943.10
74 WW Valve Building 9X1	12/16/2008	12/16/2008	15,178.78			15,178.78	3,191.79	304.00		3,495.79
75 WW Pole Frame Building	2/5/2009	2/5/2009	104,518.82			104,518.82	21,770.99	2,090.00		23,860.99
666 Ellison Hoist Bldg	6/12/2017	6/12/2017	24,252.00			24,252.00	1,010.00	485.00		1,495.00
667 Ellison Boiler	6/12/2017	6/12/2017	40,608.00		(40,608.00)	0.00	1,692.00	812.00	(2,504.00)	0.00

Cost of Fixed AssetsAccumulated Depreciation

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
120 - Building										
668 Ellison Dry-Paint Ship	6/12/2017	6/12/2017	49,632.00			49,632.00	2,069.00	993.00		3,062.00
669 Old Compressor Bldg.	6/12/2017	6/12/2017	39,198.00			39,198.00	1,633.00	784.00		2,417.00
670 Drill Bit Shop	6/12/2017	6/12/2017	87,138.00			87,138.00	3,631.00	1,743.00		5,374.00
671 Rope House	6/12/2017	6/12/2017	41,172.00		(41,172.00)	0.00	1,715.00	823.00	(2,538.00)	0.00
686 Radon Removal Building	9/15/2017	9/15/2017	615,530.88			615,530.88	22,570.00	12,311.00		34,881.00
			8,120,616.34	0.00	(416,439.47)	7,704,176.87	2,078,965.29	158,684.00	(101,521.07)	2,136,128.22
130 - Computer Hardware										
88 Rack Server RACK	5/30/2009	5/30/2009	5,700.94			5,700.94	5,700.02			5,700.02
89 Rack Server RACK	5/30/2009	5/30/2009	5,700.94			5,700.94	5,700.02			5,700.02
96 Catalyst 48-Port 10/100/1	5/30/2009	5/30/2009	8,910.00			8,910.00	8,910.00			8,910.00
97 Catalyst 48-Port 10/100/1	5/30/2009	5/30/2009	8,938.50			8,938.50	8,937.98			8,937.98
100 41213 Management Swit	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
101 41213 Management Swit	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
102 41213 Management Swit	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
103 41213 Management Swit	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
104 41213 Management Swit	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
105 41213 Management Swit	5/30/2009	5/30/2009	6,196.90			6,196.90	6,196.28			6,196.28
106 41517 48 Port TX 12800	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
107 41517 48 Port TX 12800	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
108 41517 48 Port TX 12800	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
109 41544 48 Port GBIC 128	5/30/2009	5/30/2009	9,916.90			9,916.90	9,916.28			9,916.28
110 41544 48 Port GBIC 128	5/30/2009	5/30/2009	9,916.90			9,916.90	9,916.28			9,916.28
111 41544 48 Port GBIC 128	5/30/2009	5/30/2009	9,916.90			9,916.90	9,916.28			9,916.28
112 41517 BD 12800 Managt	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
113 41517 BD 12800 Managt	5/30/2009	5/30/2009	6,510.00			6,510.00	6,510.00			6,510.00
116 41544 BD 12800 Managt	5/30/2009	5/30/2009	9,916.90			9,916.90	9,916.28			9,916.28
351 Server Rack	6/30/2010	6/30/2010	7,986.99			7,986.99	7,986.00			7,986.00
352 PLC Mine Monitoring Sy	6/30/2010	6/30/2010	7,910.20			7,910.20	7,910.00			7,910.00
429 PLC Mine Monitoring Sy	7/15/2010	7/15/2010	2,343.71			2,343.71	2,343.00			2,343.00
433 PLC Mine Monitoring Sy	4/1/2011	4/1/2011	19,866.94			19,866.94	19,866.00			19,866.00
549 Apple MP 3.5 1TB 32GB	3/31/2014	3/31/2014	5,170.42			5,170.42	5,170.00			5,170.00
583 Power Edge Server System	6/30/2015	6/30/2015	6,898.07			6,898.07	6,898.00			6,898.00
586 Dell Equal Logic PS1000	6/30/2015	6/30/2015	31,121.72			31,121.72	31,120.53			31,120.53
587 PowerVault MD1000 Sto	6/30/2015	6/30/2015	8,131.40			8,131.40	8,131.13			8,131.13
588 PowerVault MD1000 Sto	6/30/2015	6/30/2015	8,131.40			8,131.40	8,131.13			8,131.13

Cost of Fixed AssetsAccumulated Depreciation

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
130 - Computer Hardware										
600 Virtual HP Server	6/29/2015	6/30/2015	17,362.50			17,362.50	13,888.00	3,474.00		17,362.00
601 Virtual HP Server	6/29/2015	6/30/2015	17,362.50			17,362.50	13,888.00	3,474.00		17,362.00
621 Server-HP DL360Gen9 8	8/21/2015	8/21/2015	11,014.87			11,014.87	8,445.00	2,203.00		10,648.00
622 Server HP DL360 Gen9 8	8/21/2015	8/21/2015	11,014.88			11,014.88	8,445.00	2,203.00		10,648.00
623 Switch - HP 3800-24G S	8/21/2015	8/21/2015	7,522.00			7,522.00	5,766.00	1,504.00		7,270.00
624 Switch 5800-24G Switch	8/21/2015	8/21/2015	7,522.00			7,522.00	5,766.00	1,504.00		7,270.00
645 Toshiba Server (Applicat	6/14/2016	6/14/2016	5,528.00			5,528.00	3,410.00	1,106.00		4,516.00
659 Router MX104 Edge Rou	1/16/2017	1/16/2017	35,725.93			35,725.93	17,267.00	7,145.00		24,412.00
660 Backup Server HP DL380	3/2/2017	3/2/2017	9,536.63			9,536.63	4,450.00	1,907.00		6,357.00
661 Backup Server HP DL380	3/2/2017	3/2/2017	9,536.63			9,536.63	4,450.00	1,907.00		6,357.00
662 Firewall Fortigate800D U	4/2/2017	4/2/2017	12,337.00			12,337.00	5,551.00	2,467.00		8,018.00
663 Firewall Fortigate800D U	4/2/2017	4/2/2017	12,337.00			12,337.00	5,551.00	2,467.00		8,018.00
688 StorageArrayNetworkSAI	9/29/2017	9/29/2017	38,555.00			38,555.00	13,494.00	7,711.00		21,205.00
699 CiscoNexusSwitch 10G E	5/7/2019	5/7/2019	8,125.00			8,125.00	271.00	1,625.00		1,896.00
700 Cisco Nexus Switch 48 1	5/7/2019	5/7/2019	8,125.00			8,125.00	271.00	1,625.00		1,896.00
705 Cisco Nexus Switch N9K	7/1/2019	7/1/2019		10,909.00		10,909.00		2,182.00		2,182.00
709 Metasys Server Johnson C	9/17/2019	9/17/2019		15,418.00		15,418.00		2,313.00		2,313.00
714 Cisco Nexus Switch9318	1/20/2020	1/20/2020		12,787.50		12,787.50		1,066.00		1,066.00
715 Cisco Nexus Switch 9318	1/20/2020	1/20/2020		12,787.50		12,787.50		1,066.00		1,066.00
716 Cisco Nexus Switch 9318	1/20/2020	1/20/2020		12,787.50		12,787.50		1,066.00		1,066.00
717 Cisco Nexus Switch N93	1/20/2020	1/20/2020		12,787.50		12,787.50		1,066.00		1,066.00
718 Fortinet Firewall	1/20/2020	1/20/2020		18,866.45		18,866.45		1,572.00		1,572.00
719 Fortinet Firewall	1/20/2020	1/20/2020		18,866.45		18,866.45		1,572.00		1,572.00
724 AppleMACPro	6/19/2020	6/19/2020		7,907.83		7,907.83				0.00
			447,815.17	123,117.73	0.00	570,932.90	347,109.61	54,225.00	0.00	401,334.61
140 - Equipment & Fixtures										
119 Telephone Equipment	6/1/2006	6/1/2006	3,927.47			3,927.47	3,926.69			3,926.69
120 Kubota RTV900T6H Util	10/31/2006	10/31/2006	16,535.00			16,535.00	16,535.00			16,535.00
121 John Deere 304J Wheel L	11/30/2006	11/30/2006	89,701.26			89,701.26	89,700.83			89,700.83
122 Solomon Corp 1000kva,1	3/16/2007	3/16/2007	8,017.33			8,017.33	3,450.43	200.00		3,650.43
179 Softstart Controllers 700I	6/30/2007	6/30/2007	167,350.00			167,350.00	122,726.67	11,157.00		133,883.67
123 Oxygen Booster Pumps C	7/1/2007	7/1/2007	21,400.00			21,400.00	21,400.00			21,400.00
124 Command Modules Com	7/1/2007	7/1/2007	18,589.00			18,589.00	18,589.00			18,589.00
125 Self-Contained Breathing	7/1/2007	7/1/2007	97,720.00			97,720.00	97,720.00			97,720.00
207 Motor GE 700HP HL840	9/24/2007	9/24/2007	28,370.67			28,370.67	15,598.53	1,418.00		17,016.53

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment & Fixtures										
154 700HP Kirk Timberyard :	11/29/2007	11/29/2007	25,860.76			25,860.76	9,482.03	862.00		10,344.03
168 Transformer 225 KVA TI	12/17/2007	12/17/2007	12,355.22			12,355.22	3,398.88	309.00		3,707.88
126 Safety Apparatus (7 pack	12/31/2007	12/31/2007	48,860.00			48,860.00	48,860.00			48,860.00
213 Transformer GE 500KVA	2/27/2008	2/27/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
220 Transformer GE 500KVA	2/27/2008	2/27/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
221 Transformer Howard Ind	2/27/2008	2/27/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
223 Transformer Howard Ind	2/27/2008	2/27/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
224 Transformer Solomon 100	2/27/2008	2/27/2008	5,900.00			5,900.00	1,627.50	148.00		1,775.50
225 Transformer Solomon 100	2/27/2008	2/27/2008	5,900.00			5,900.00	1,627.50	148.00		1,775.50
226 Transformer Solomon 100	2/27/2008	2/27/2008	5,900.00			5,900.00	1,627.50	148.00		1,775.50
227 Transformer Howard Ind	2/27/2008	2/27/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
228 Transformer GE 75KVA	2/27/2008	2/27/2008	5,800.00			5,800.00	1,595.00	145.00		1,740.00
229 Transformer GE 75KVA	2/27/2008	2/27/2008	5,800.00			5,800.00	1,595.00	145.00		1,740.00
230 Transformer GE 75KVA	2/27/2008	2/27/2008	5,800.00			5,800.00	1,595.00	145.00		1,740.00
218 Transformer GE 500KVA	2/28/2008	2/28/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
129 3 Ton Locomotive Batter	2/29/2008	2/29/2008	7,884.00			7,884.00	7,884.00			7,884.00
201 Pump Ingersoll Rand 037	3/12/2008	3/12/2008	91,206.72			91,206.72	40,128.27	3,648.00		43,776.27
211 Transformer GE 500KVA	3/25/2008	3/25/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
212 Transformer GE 500KVA	3/25/2008	3/25/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
214 Transformer Westinghou:	3/25/2008	3/25/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
216 Transformer Westinghou:	3/25/2008	3/25/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
217 Transformer Westinghou:	3/25/2008	3/25/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
219 Transformer GE 500KVA	3/25/2008	3/25/2008	7,350.00			7,350.00	2,023.75	184.00		2,207.75
144 Cranes	4/30/2008	4/30/2008	100,509.34			100,509.34	14,740.12	1,340.00		16,080.12
204 Motor GE 700HP FM84C	5/6/2008	5/6/2008	32,772.50			32,772.50	18,028.63	1,639.00		19,667.63
190 Troll 9500 Water Sample	5/14/2008	5/14/2008	8,325.92			8,325.92	8,324.59			8,324.59
180 Axial Flow Mine Fan 150	5/30/2008	5/30/2008	53,484.75			53,484.75	29,414.24	2,674.00		32,088.24
142 Base Interface 4 channel	6/18/2008	6/18/2008	6,011.00			6,011.00	6,011.00			6,011.00
132 Telephone System Additi	6/30/2008	6/30/2008	11,371.31			11,371.31	11,371.00			11,371.00
166 Ross Hoist (2)	6/30/2008	6/30/2008	121,842.89			121,842.89	17,874.57	1,625.00		19,499.57
169 Transformer GE 5MVA 1	7/1/2008	7/1/2008	5,000.00			5,000.00	1,375.00	125.00		1,500.00
171 Transformer GE 1500KV	7/1/2008	7/1/2008	5,000.00			5,000.00	1,375.00	125.00		1,500.00
172 Transformer GE 10,000K	7/1/2008	7/1/2008	10,000.00			10,000.00	2,750.00	250.00		3,000.00
173 Transformer GE 20,000K	7/1/2008	7/1/2008	15,000.00			15,000.00	4,125.00	375.00		4,500.00
174 Transformer GE 10,000 F	7/1/2008	7/1/2008	10,000.00			10,000.00	2,750.00	250.00		3,000.00

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment & Fixtures										
175 Transformer GE 10,000K	7/1/2008	7/1/2008	10,000.00			10,000.00	2,750.00	250.00		3,000.00
247 MG Sets (2) Yates	7/1/2008	7/1/2008	60,000.00			60,000.00	8,800.00	800.00		9,600.00
235 FLYGT Centrifugal Pump	7/23/2008	7/23/2008	11,997.23			11,997.23	5,239.90	480.00		5,719.90
167 Security Monitoring Gate	8/1/2008	8/1/2008	23,126.00		(23,126.00)	0.00	23,125.88	0.12	(23,126.00)	0.00
202 Pump Ingersoll Rand 213	8/1/2008	8/1/2008	22,508.00			22,508.00	9,825.29	900.00		10,725.29
203 Pump Ingersoll Rand 675	8/1/2008	8/1/2008	130,646.97			130,646.97	57,050.39	5,226.00		62,276.39
234 Diesel Generator - WWTP	8/1/2008	8/1/2008	5,000.00			5,000.00	5,000.00			5,000.00
236 FLYGT 10HP Pumps (2)	8/1/2008	8/1/2008	12,000.00			12,000.00	5,240.00	480.00		5,720.00
237 FLYGT 15HP Pumps (2)	8/1/2008	8/1/2008	18,000.00			18,000.00	7,860.00	720.00		8,580.00
241 Rotating Biological Cont	8/1/2008	8/1/2008	206,014.95			206,014.95	44,976.94	4,120.00		49,096.94
242 Sand Filter Galiger Pump	8/1/2008	8/1/2008	15,000.00			15,000.00	6,550.00	600.00		7,150.00
243 Sand Filters (3) WWTP	8/1/2008	8/1/2008	45,000.00			45,000.00	9,825.00	900.00		10,725.00
245 Soda Ash System	8/1/2008	8/1/2008	9,573.70			9,573.70	2,085.52	191.00		2,276.52
188 Electric Winch (WE271)	8/15/2008	8/15/2008	47,187.00			47,187.00	10,305.10	944.00		11,249.10
231 Fume Hood for Lab Cabin	8/22/2008	8/22/2008	5,989.95			5,989.95	5,989.16			5,989.16
205 Motor GE 700HP FM84C	8/25/2008	8/25/2008	38,004.39			38,004.39	20,583.52	1,900.00		22,483.52
156 MG Sets (2) Ross	8/31/2008	8/31/2008	60,000.00			60,000.00	8,666.67	800.00		9,466.67
194 Yates Hoists (2)	8/31/2008	8/31/2008	89,168.26			89,168.26	12,880.76	1,189.00		14,069.76
209 Motor GE 700HP HL840	9/22/2008	9/22/2008	31,362.30			31,362.30	16,856.09	1,568.00		18,424.09
150 Kubota GL7000 Generator	10/21/2008	10/21/2008	5,300.00			5,300.00	5,300.00			5,300.00
232 Cornell Pumps W/Baldor	10/29/2008	10/29/2008	27,102.98			27,102.98	11,562.75	1,084.00		12,646.75
157 Miller Trailblazer 3020 V	11/5/2008	11/5/2008	7,430.00			7,430.00	7,430.00			7,430.00
137 40 Unit Cap Lamp Chrg	11/20/2008	11/20/2008	5,253.00		(5,253.00)	0.00	5,253.00		(5,253.00)	0.00
206 Motor GE 700HP FM83S	11/24/2008	11/24/2008	35,025.30			35,025.30	18,531.57	1,751.00		20,282.57
149 FSM-60S Fusion Splice F	11/28/2008	11/28/2008	19,810.00			19,810.00	13,980.39	1,321.00		15,301.39
136 Admin. Bldg. Heating/Cc	11/30/2008	11/30/2008	32,493.88			32,493.88	32,493.48			32,493.48
244 Seepex 200 GPM Pump	12/15/2008	12/15/2008	16,316.24			16,316.24	6,910.71	653.00		7,563.71
238 Hoffman 3R Wall Mount	12/24/2008	12/24/2008	11,657.72			11,657.72	8,158.59	777.00		8,935.59
148 Franklin 8" Sand Fighter	12/29/2008	12/29/2008	44,457.42			44,457.42	23,341.44	2,223.00		25,564.44
161 1,000,000BTU Indirect F	12/30/2008	12/30/2008	15,537.00			15,537.00	15,536.85			15,536.85
143 (1) Benshaw Softstart 700	1/6/2009	1/6/2009	35,257.43			35,257.43	24,675.25	2,350.00		27,025.25
162 VFD Pump Controller 15	2/2/2009	2/2/2009	23,100.00			23,100.00	16,041.67	1,540.00		17,581.67
163 VFD Pump Controller 20	2/2/2009	2/2/2009	46,200.00			46,200.00	32,083.33	3,080.00		35,163.33
160 Portable Air Conditioner	2/6/2009	2/6/2009	11,325.40			11,325.40	11,324.89			11,324.89
146 Float Valves for Yates (1)	2/9/2009	2/9/2009	114,346.31			114,346.31	114,346.31			114,346.31

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment & Fixtures										
145 Crane #6 Winze Undergr	2/19/2009	2/19/2009	10,631.95			10,631.95	1,467.25	142.00		1,609.25
200 Pump Ingersoll Rand 107	2/25/2009	2/25/2009	122,676.93			122,676.93	50,705.69	4,907.00		55,612.69
208 Motor GE 700HP ZRH28	3/5/2009	3/5/2009	27,154.00			27,154.00	14,032.57	1,358.00		15,390.57
158 3000HP American David	3/6/2009	3/6/2009	78,752.15			78,752.15	27,125.02	2,625.00		29,750.02
199 Pump Ingersoll Rand 100	3/28/2009	3/28/2009	147,258.51			147,258.51	60,372.59	5,890.00		66,262.59
192 Western Tornado Sand S	4/1/2009	4/1/2009	5,168.50			5,168.50	5,168.21			5,168.21
193 Western Ultramount Pro	4/1/2009	4/1/2009	5,247.63		(5,247.63)	0.00	5,247.63		(5,247.63)	0.00
147 Danfoss Flowmatic Chec	4/2/2009	4/2/2009	6,919.11			6,919.11	6,918.98			6,918.98
198 Pump Ingersoll Rand 372	4/30/2009	4/30/2009	55,987.45			55,987.45	22,763.25	2,239.00		25,002.25
164 VFD 150 HP Control Par	5/14/2009	5/14/2009	12,705.00			12,705.00	8,611.17	847.00		9,458.17
181 Trojan 3.25 Locomotive	6/10/2009	6/10/2009	47,115.60			47,115.60	21,235.00	2,106.00		23,341.00
182 Battery for Trojan Locom	6/10/2009	6/10/2009	11,000.00			11,000.00	10,999.95			10,999.95
153 Huron 560 Wall Tank an	6/11/2009	6/11/2009	6,098.08			6,098.08	3,075.41	305.00		3,380.41
138 Ansul Inergen Fire Suppr	6/23/2009	6/23/2009	12,919.00			12,919.00	8,610.00	861.00		9,471.00
155 Lift Bag Kit Light US&R	6/25/2009	6/25/2009	16,750.00			16,750.00	16,750.00			16,750.00
135 Telephone Expansion	6/26/2009	6/26/2009	28,249.27			28,249.27	28,249.00			28,249.00
140 2008 Artic Cat 700 Diese	6/30/2009	6/30/2009	10,244.54			10,244.54	9,732.00			9,732.00
141 2008 Artic Cat 700 Diese	6/30/2009	6/30/2009	10,244.55			10,244.55	9,732.00			9,732.00
195 Ross Fuel Tank/Stand/Cc	6/30/2009	6/30/2009	21,100.39			21,100.39	21,100.00			21,100.00
353 JD Skid Steer 315 W/CE	7/18/2009	7/18/2009	23,241.00			23,241.00	23,046.00	195.00		23,241.00
354 Trojan 3.25 Locomotive	8/28/2009	8/28/2009	46,692.71			46,692.71	20,502.00	2,085.00		22,587.00
355 .36Cell/72 Volt Battery f	8/28/2009	8/28/2009	11,000.00			11,000.00	11,000.00			11,000.00
356 Sanyo Air Conditioning S	9/1/2009	9/1/2009	41,401.66		(41,401.66)	0.00	40,710.00		(40,710.00)	0.00
358 High Voltage Cable Testi	9/23/2009	9/23/2009	7,920.00			7,920.00	7,722.00	198.00		7,920.00
359 Water Meter LUX Surfac	10/1/2009	10/1/2009	6,011.30			6,011.30	5,860.00	151.00		6,011.00
360 Wall Mounted Enclosure	10/1/2009	10/1/2009	7,200.00			7,200.00	4,680.00	480.00		5,160.00
361 8-1/2' Western Ultramour	10/1/2009	10/1/2009	5,309.25			5,309.25	5,177.00	132.00		5,309.00
362 Benshaw Softstart 700HF	10/1/2009	10/1/2009	35,257.43			35,257.43	22,913.00	2,350.00		25,263.00
364 Vertical Diesel Symo Pov	10/22/2009	10/22/2009	8,665.05			8,665.05	8,372.00	293.00		8,665.00
365 Vertical Diesel Symo Pov	10/22/2009	10/22/2009	5,721.30			5,721.30	5,529.00	192.00		5,721.00
366 Wall Mounted Enclosure	11/1/2009	11/1/2009	7,200.00			7,200.00	4,640.00	480.00		5,120.00
367 Spendrup 350HP Fan at C	11/1/2009	11/1/2009	83,092.63			83,092.63	40,165.00	4,155.00		44,320.00
368 500KVA Transformer3 P	11/1/2009	11/1/2009	18,465.41			18,465.41	4,466.00	462.00		4,928.00
369 Baldor VFD Motors 350H	11/1/2009	11/1/2009	61,000.00			61,000.00	29,483.00	3,050.00		32,533.00
370 Benshaw Switch Disconn	11/1/2009	11/1/2009	8,791.96			8,791.96	5,665.00	586.00		6,251.00

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Sys ID	Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment & Fixtures											
371	GE700HP GE Pump Mot	11/1/2009	11/1/2009	31,986.00			31,986.00	15,457.00	1,599.00		17,056.00
372	350HP Spendrup Fan at #	11/10/2009	11/10/2009	106,641.04			106,641.04	51,543.00	5,332.00		56,875.00
374	S&C PMX Modular Met	12/1/2009	12/1/2009	27,059.00			27,059.00	17,288.00	1,804.00		19,092.00
375	GE 8000 Series Breaker I	12/3/2009	12/3/2009	6,464.69			6,464.69	4,130.00	431.00		4,561.00
376	GE Spectra Series Switch	12/3/2009	12/3/2009	7,239.85			7,239.85	4,629.00	483.00		5,112.00
377 (2)	A Bradley Powerflex .	12/3/2009	12/3/2009	15,068.40			15,068.40	9,631.00	1,005.00		10,636.00
378	Multi Media Sand Filter	12/3/2009	12/3/2009	615,021.84			615,021.84	117,875.00	12,300.00		130,175.00
397	Telephone System Upgra	12/7/2009	12/7/2009	17,712.14			17,712.14	16,972.00	740.00		17,712.00
379	Johnson Controls HVAC	1/1/2010	1/1/2010	18,921.00			18,921.00	17,974.00	947.00		18,921.00
380	Johnson Controls HVAC	1/1/2010	1/1/2010	20,427.00			20,427.00	19,408.00	1,019.00		20,427.00
381	HVAC Air Handling Uni	1/1/2010	1/1/2010	20,862.92			20,862.92	19,817.00	1,045.00		20,862.00
382	Chemical Outdoor Stora	1/15/2010	1/15/2010	28,869.55			28,869.55	13,709.00	1,443.00		15,152.00
383	HydraulicClamb/Pneuma	1/25/2010	1/25/2010	26,940.00			26,940.00	25,368.00	1,572.00		26,940.00
384	Fire Pump	2/1/2010	2/1/2010	13,163.08			13,163.08	12,392.00	771.00		13,163.00
385	Jockey Pump	2/1/2010	2/1/2010	13,163.08			13,163.08	12,392.00	771.00		13,163.00
386	HY-25XLT 2-1/2" Sq Dr	2/4/2010	2/4/2010	13,957.43			13,957.43	13,146.00	811.00		13,957.00
399	Telephone System LUX S	2/15/2010	2/15/2010	9,218.04			9,218.04	8,682.00	536.00		9,218.00
387	Wall Mounted Enclosure	3/1/2010	3/1/2010	7,200.00			7,200.00	4,480.00	480.00		4,960.00
388	S&C PMX Modular Met	3/1/2010	3/1/2010	27,059.00			27,059.00	16,837.00	1,804.00		18,641.00
389	GE Switchgear	3/1/2010	3/1/2010	58,844.32			58,844.32	36,615.00	3,923.00		40,538.00
390	MQ Generator 15KW Mc	3/1/2010	3/1/2010	10,117.00			10,117.00	9,445.00	672.00		10,117.00
391	Atlas Copco XAS 185 CI	3/1/2010	3/1/2010	8,924.50			8,924.50	8,325.00	599.00		8,924.00
392	Atlas Copco XAS 185 CI	3/1/2010	3/1/2010	8,924.50			8,924.50	8,325.00	599.00		8,924.00
393	115V PSI Hytorc Pump	3/30/2010	3/30/2010	5,108.37			5,108.37	4,727.00	381.00		5,108.00
394	Clean Room-Surface Lab	5/31/2010	5/31/2010	116,000.00			116,000.00	105,367.00	10,633.00		116,000.00
395	S&C Metal Enclosed Fus	6/30/2010	6/30/2010	7,200.00			7,200.00	4,320.00	480.00		4,800.00
398	Telephone System Upgra	6/30/2010	6/30/2010	8,451.00			8,451.00	7,605.00	846.00		8,451.00
400	Telephone System Ross I	6/30/2010	6/30/2010	6,683.90			6,683.90	6,012.00	671.00		6,683.00
426	S&C Wall-Mounted Met	7/1/2010	7/1/2010	7,200.00			7,200.00	4,320.00	480.00		4,800.00
430	Chem Grout Machine Pu	7/29/2010	7/29/2010	5,500.00			5,500.00	4,904.00	550.00		5,454.00
420	Bobcat Skidsteer S300 D	8/2/2010	8/2/2010	33,030.64			33,030.64	29,452.00	3,303.00		32,755.00
423	Air Compressor 125HP F	9/1/2010	9/1/2010	18,515.00			18,515.00	16,359.00	1,852.00		18,211.00
422	JD Angle Broom for Skid	9/3/2010	9/3/2010	5,925.00			5,925.00	5,230.00	592.00		5,822.00
421	S&C PMX Modular Met	9/16/2010	9/16/2010	27,059.00			27,059.00	15,785.00	1,804.00		17,589.00
439	Ross Dry Phone/Data Sys	9/24/2010	9/24/2010	9,183.36			9,183.36	8,033.00	918.00		8,951.00

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Sys ID	Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment & Fixtures											
440	Ross Shaft UG Phone/Da	10/25/2010	10/25/2010	8,550.63			8,550.63	7,410.00	855.00		8,265.00
441	Yates E&O Phone/Data S	11/30/2010	11/30/2010	12,314.24			12,314.24	10,566.00	1,231.00		11,797.00
424	Radon Monitor Alphagua	12/1/2010	12/1/2010	15,028.98			15,028.98	12,901.00	1,503.00		14,404.00
416	Locomotive 1975 8 Ton #	1/27/2011	1/27/2011	130,000.00			130,000.00	130,000.00			130,000.00
417	Locomotive 1975 8 Ton #	1/27/2011	1/27/2011	130,000.00			130,000.00	130,000.00			130,000.00
418	Loader 2007 LT 210 #07-	1/27/2011	1/27/2011	195,000.00			195,000.00	164,125.00	19,500.00		183,625.00
427	Shotcrete Mixing Auger	2/28/2011	2/28/2011	18,450.00			18,450.00	15,375.00	1,845.00		17,220.00
438	Admin Building Phone/D	3/1/2011	3/1/2011	3,876.26			3,876.26	3,233.00	388.00		3,621.00
432	Loader 2007 LT350 #07-	5/31/2011	5/31/2011	230,000.00			230,000.00	185,917.00	23,000.00		208,917.00
451	JD XAS 375 CFM Air Co	9/1/2011	9/1/2011	27,900.00			27,900.00	21,855.00	2,790.00		24,645.00
469	Transformer 45KVA 600	9/1/2011	9/1/2011	5,298.00			5,298.00	1,034.00	132.00		1,166.00
453	Battery Charger for 9-Ton	1/1/2012	1/1/2012	6,127.78			6,127.78	4,597.00	613.00		5,210.00
455	TEI 260 Hydraulic Percu	1/1/2012	1/1/2012	32,949.71			32,949.71	24,712.00	3,295.00		28,007.00
454	Lefon Portable Electric P	1/4/2012	1/4/2012	8,218.50			8,218.50	6,165.00	822.00		6,987.00
461	Lull 54' Telescopic Forkli	1/12/2012	1/12/2012	52,500.00			52,500.00	39,375.00	5,250.00		44,625.00
456	Ross Shaft Work Deck	1/20/2012	1/20/2012	16,395.00			16,395.00	12,163.00	1,640.00		13,803.00
459	JD 315 Skid Steer W/Buc	2/10/2012	2/10/2012	25,234.00			25,234.00	18,712.00	2,523.00		21,235.00
457	GE 1500KVA 480/277V	3/1/2012	3/1/2012	102,230.90			102,230.90	18,744.00	2,556.00		21,300.00
458	GE Switchboard 1500KV	3/1/2012	3/1/2012	20,762.10			20,762.10	10,149.00	1,384.00		11,533.00
462	Yates Hoist South Cage	5/1/2012	5/1/2012	123,484.05			123,484.05	88,494.00	12,348.00		100,842.00
480	Rope Dog System Yates S	5/1/2012	5/1/2012	69,642.40			69,642.40	49,909.00	6,964.00		56,873.00
599	Yates Rope Dog System	5/1/2012	5/1/2012	227,216.99			227,216.99	105,362.87	15,148.00		120,510.87
463	Caterpillar Diesel Genera	5/3/2012	5/3/2012	54,313.83			54,313.83	38,922.00	5,431.00		44,353.00
464	Profi 1-Ton Air Hoist 25'	5/8/2012	5/8/2012	6,970.00			6,970.00	4,995.00	697.00		5,692.00
465	Profi 1-Ton Air Hoist 25'	5/8/2012	5/8/2012	6,970.00			6,970.00	4,995.00	697.00		5,692.00
470	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	10,228.00	1,444.00		11,672.00
471	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	10,228.00	1,444.00		11,672.00
472	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	10,228.00	1,444.00		11,672.00
473	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	10,228.00	1,444.00		11,672.00
474	S&C Metal Enclosed Swi	6/1/2012	6/1/2012	21,656.40			21,656.40	10,228.00	1,444.00		11,672.00
475	Multilin PQM II Meter fo	6/1/2012	6/1/2012	5,389.00			5,389.00	2,543.00	359.00		2,902.00
466	Scanstation C10 Laser Sc	6/5/2012	6/5/2012	59,609.44			59,609.44	42,224.00	5,961.00		48,185.00
467	Refuge Chamber 6X6X1	6/19/2012	6/19/2012	38,105.00			38,105.00	13,335.00	1,905.00		15,240.00
468	Refuge Chamber 6X6X1	6/19/2012	6/19/2012	38,105.00			38,105.00	13,335.00	1,905.00		15,240.00
496	Justice Fire & Safety Pan	7/1/2012	7/1/2012	7,588.00			7,588.00	3,542.00	506.00		4,048.00

Cost of Fixed AssetsAccumulated Depreciation

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment & Fixtures										
497 Quincy Air Regulator	7/1/2012	7/1/2012	17,788.76			17,788.76	12,453.00	1,779.00		14,232.00
498 Cornell McKeon Rollup I	7/1/2012	7/1/2012	8,980.00			8,980.00	4,193.00	599.00		4,792.00
499 Rheem Water Heater	7/1/2012	7/1/2012	10,070.00			10,070.00	7,049.00	1,007.00		8,056.00
500 Johnson Controls Air Har	7/1/2012	7/1/2012	25,071.00			25,071.00	17,549.00	2,507.00		20,056.00
501 Johnson Controls Air Har	7/1/2012	7/1/2012	21,529.00			21,529.00	15,071.00	2,153.00		17,224.00
502 Johnson Controls Air Har	7/1/2012	7/1/2012	21,529.00			21,529.00	15,071.00	2,153.00		17,224.00
503 Johnson Controls Air Har	7/1/2012	7/1/2012	17,039.00			17,039.00	11,928.00	1,704.00		13,632.00
504 Johnson Controls Chiller	7/1/2012	7/1/2012	17,245.00		(17,245.00)	0.00	12,068.00	1,006.00	(13,074.00)	0.00
505 Johnson Controls Chiller	7/1/2012	7/1/2012	17,245.00		(17,245.00)	0.00	12,068.00	1,006.00	(13,074.00)	0.00
506 Johnson Controls Air Har	7/1/2012	7/1/2012	17,436.00			17,436.00	12,208.00	1,744.00		13,952.00
525 Line Power Transformers	7/1/2012	7/1/2012	5,000.00			5,000.00	875.00	125.00		1,000.00
526 LN Tank Concrete Pad	8/1/2012	8/1/2012	7,920.00			7,920.00	2,739.00	396.00		3,135.00
484 R&M Hoist 7.5 Ton	8/2/2012	8/2/2012	19,510.50			19,510.50	13,494.00	1,951.00		15,445.00
485 R&M Hoist 10 Ton	8/2/2012	8/2/2012	21,560.50			21,560.50	14,912.00	2,156.00		17,068.00
490 Skyclimber Suspended W	9/6/2012	9/6/2012	67,172.86			67,172.86	45,900.00	6,717.00		52,617.00
491 Skyclimber Electric Hoist	9/6/2012	9/6/2012	6,586.85			6,586.85	4,503.00	659.00		5,162.00
492 Skyclimber Electric Hoist	9/6/2012	9/6/2012	6,586.85			6,586.85	4,503.00	659.00		5,162.00
493 Skyclimber Electric Hoist	9/6/2012	9/6/2012	6,586.85			6,586.85	4,503.00	659.00		5,162.00
494 Skyclimber Electric Hoist	9/6/2012	9/6/2012	6,586.85			6,586.85	4,503.00	659.00		5,162.00
489 Ross Cage Work Deck	9/12/2012	9/12/2012	70,226.22			70,226.22	68,552.00	1,674.00		70,226.00
486 LUX Water Treatment Sy	9/25/2012	9/25/2012	147,582.73			147,582.73	66,413.00	9,839.00		76,252.00
483 North Skip Work Deck (I	9/28/2012	9/28/2012	30,837.94			30,837.94	29,734.00	1,103.00		30,837.00
487 Jib Crane Ceiling Mount	10/1/2012	10/1/2012	28,175.00			28,175.00	19,021.00	2,818.00		21,839.00
488 Jib Crane Ceiling Mount	10/1/2012	10/1/2012	30,450.00			30,450.00	20,554.00	3,045.00		23,599.00
508 S205 Skidsteer W/Forks	10/19/2012	10/19/2012	21,000.00			21,000.00	14,000.00	2,100.00		16,100.00
495 LUX Water Tank 4850	10/22/2012	10/22/2012	364,225.82			364,225.82	161,880.00	24,282.00		186,162.00
524 Line Power Transformer	12/10/2012	12/10/2012	8,000.00			8,000.00	1,317.00	200.00		1,517.00
512 Profi 1Ton Air Hoist 25' I	1/16/2013	1/16/2013	7,415.07			7,415.07	4,755.00	741.00		5,496.00
513 Caterpillar Diesel Genera	2/1/2013	2/1/2013	28,434.00			28,434.00	18,243.00	2,843.00		21,086.00
519 MS Scrubbing Systems L	2/1/2013	2/1/2013	17,040.00			17,040.00	10,934.00	1,704.00		12,638.00
520 MS Scrubbing Systems L	2/1/2013	2/1/2013	17,040.00			17,040.00	10,934.00	1,704.00		12,638.00
515 Ross Headframe Garage I	2/26/2013	2/26/2013	22,621.00			22,621.00	14,326.00	2,262.00		16,588.00
523 Modification to Ross Wo	4/16/2013	4/16/2013	7,010.22			7,010.22	6,173.00	837.00		7,010.00
528 25HP Diesel Hydraulic P	6/15/2013	6/15/2013	11,070.85			11,070.85	6,734.00	1,107.00		7,841.00
536 IT Generator Concrete Pa	8/1/2013	8/1/2013	6,640.00			6,640.00	1,964.00	332.00		2,296.00

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment & Fixtures										
538 Yates Loading Dock	9/9/2013	9/9/2013	7,040.00			7,040.00	1,645.00	282.00		1,927.00
540 IT Generator Install	10/31/2013	10/31/2013	28,056.44			28,056.44	15,900.00	2,806.00		18,706.00
554 Hitachi CPWU9410 Proj	1/18/2014	1/18/2014	13,228.18			13,228.18	7,166.00	1,323.00		8,489.00
542 Chem Grout Machine Pul	3/10/2014	3/10/2014	5,909.59			5,909.59	3,152.00	591.00		3,743.00
547 Bolter J.H. Fletcher & Co	4/25/2014	4/25/2014	546,642.95			546,642.95	112,974.00	21,866.00		134,840.00
550 Big Blue 300 Pro Kubota	5/2/2014	5/2/2014	10,445.00			10,445.00	5,394.00	1,044.00		6,438.00
551 Big Blue 300 Pro Kubota	5/2/2014	5/2/2014	10,445.00			10,445.00	5,394.00	1,044.00		6,438.00
548 2014 Toolmaster Trailer	5/8/2014	5/8/2014	11,200.00			11,200.00	5,787.00	1,120.00		6,907.00
553 Ultrasonic Flaw Detector	6/9/2014	6/9/2014	11,742.78			11,742.78	5,968.00	1,174.00		7,142.00
579 Line Power Skid Transfo	7/1/2014	7/1/2014	5,000.00			5,000.00	625.00	125.00		750.00
580 Line Power Skid Transfo	7/1/2014	7/1/2014	8,000.00			8,000.00	1,000.00	200.00		1,200.00
566 Davis Campus Dehumidi	7/22/2014	7/22/2014	508,965.03			508,965.03	250,239.00	50,896.00		301,135.00
565 Fisher 2" Valves (2)	8/8/2014	8/8/2014	13,554.96			13,554.96	6,662.00	1,355.00		8,017.00
568 Canon EOS C100 Cinem	8/8/2014	8/8/2014	5,499.00			5,499.00	5,408.00	91.00		5,499.00
569 WTP Mix Tank	8/27/2014	8/27/2014	110,641.63			110,641.63	21,392.00	4,426.00		25,818.00
572 HVAC Unit - Adm. Builc	10/10/2014	10/10/2014	17,358.78			17,358.78	8,246.00	1,736.00		9,982.00
577 Pressure Tank 660Gal.on	11/5/2014	11/5/2014	6,081.27			6,081.27	2,837.00	608.00		3,445.00
574 Yates Work Platform (Sk	12/22/2014	12/22/2014	30,419.20			30,419.20	13,689.00	3,042.00		16,731.00
575 Thern Winch (Helical-Be	12/23/2014	12/23/2014	7,909.00			7,909.00	3,559.00	791.00		4,350.00
581 Mining Controls Portable	1/1/2015	1/1/2015	5,000.00			5,000.00	562.00	125.00		687.00
576 Profi 1-Ton Air Hoist 25'	1/26/2015	1/26/2015	7,675.00			7,675.00	3,392.00	768.00		4,160.00
578 JLG Electric Scissor Lift	2/24/2015	2/24/2015	20,470.00			20,470.00	8,870.00	2,047.00		10,917.00
589 Topcon GPT Data Collec	6/30/2015	6/30/2015	9,850.00			9,850.00	9,714.16	136.00		9,850.16
590 Wolverine 25D Hydraulic	6/30/2015	6/30/2015	12,816.00			12,816.00	9,990.25	1,602.00		11,592.25
591 Micro 1000 Data Logger	6/30/2015	6/30/2015	7,705.14			7,705.14	7,704.69			7,704.69
592 Micro 1000 Data Logger	6/30/2015	6/30/2015	7,705.14			7,705.14	7,704.69			7,704.69
593 Mini Track Loader	6/30/2015	6/30/2015	22,546.19			22,546.19	20,234.78	2,311.00		22,545.78
594 Vertical Diesel Symo Pov	6/30/2015	6/30/2015	14,023.44			14,023.44	14,023.23			14,023.23
595 IT Generac Generator	6/30/2015	6/30/2015	26,208.14			26,208.14	23,533.76	2,674.00		26,207.76
596 Kubota RTV Utility	6/30/2015	6/30/2015	11,542.33			11,542.33	9,219.14	1,649.00		10,868.14
597 Kubota RTV Utility	6/30/2015	6/30/2015	11,542.33			11,542.33	9,219.14	1,649.00		10,868.14
598 HD Video Conferencing	6/30/2015	6/30/2015	13,990.26			13,990.26	13,990.08			13,990.08
636 Neutron Doors (2)Lead R	7/1/2015	7/1/2015	89,520.00			89,520.00	35,808.00	8,952.00		44,760.00
640 DDX Preaction Valve Re	7/22/2015	7/22/2015	12,801.00			12,801.00	5,013.00	1,280.00		6,293.00
637 Lighting Inverter Ross C	7/31/2015	7/31/2015	10,000.00			10,000.00	3,917.00	1,000.00		4,917.00

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment & Fixtures										
638 Transformer 300KVA 12	7/31/2015	7/31/2015	20,572.35			20,572.35	2,013.00	514.00		2,527.00
639 Fire Alarm Panel Ross C	7/31/2015	7/31/2015	18,291.60			18,291.60	4,775.00	1,219.00		5,994.00
610 S&CMetal Encl.Switchge	8/1/2015	8/1/2015	81,000.00			81,000.00	21,150.00	5,400.00		26,550.00
629 AHU-1-Ross Campus Air	9/9/2015	9/9/2015	12,695.62			12,695.62	4,868.00	1,270.00		6,138.00
630 AHU-2-Ross Campus Air	9/9/2015	9/9/2015	12,695.62			12,695.62	4,868.00	1,270.00		6,138.00
631 DOAS-1Ross Campus Air	9/9/2015	9/9/2015	11,691.80			11,691.80	4,481.00	1,169.00		5,650.00
632 Chiller CH-1 Ross Camp	9/9/2015	9/9/2015	57,680.96			57,680.96	22,111.00	5,768.00		27,879.00
633 AHU-1 BSUCleanroom /	9/9/2015	9/9/2015	20,988.00			20,988.00	8,046.00	2,099.00		10,145.00
634 Heat Exchanger Ross Car	9/9/2015	9/9/2015	26,581.62			26,581.62	10,189.00	2,658.00		12,847.00
635 Liq.NitrogenDistri.Syster	9/9/2015	9/9/2015	22,654.00			22,654.00	8,683.00	2,265.00		10,948.00
612 Polycom16ChannelMicM	10/14/2015	10/14/2015	8,030.30			8,030.30	6,022.00	1,606.00		7,628.00
613 3-Series Digital Media Pr	10/14/2015	10/14/2015	7,464.30			7,464.30	5,599.00	1,493.00		7,092.00
614 Polycom EagleEyeVCam	10/14/2015	10/14/2015	12,259.30			12,259.30	9,195.00	2,452.00		11,647.00
615 Hitachi CPWU9411 Proj	10/14/2015	10/14/2015	13,803.30			13,803.30	10,353.00	2,761.00		13,114.00
616 SMART Board 84 Flat P	10/14/2015	10/14/2015	16,331.32			16,331.32	12,248.00	3,266.00		15,514.00
617 Polycom 16 Channel Mic	10/14/2015	10/14/2015	8,030.30			8,030.30	6,022.00	1,606.00		7,628.00
618 Polycom 16Channel Micl	10/14/2015	10/14/2015	8,030.30			8,030.30	6,022.00	1,606.00		7,628.00
619 Crestron 3 Series Digital	10/14/2015	10/14/2015	7,464.30			7,464.30	5,599.00	1,493.00		7,092.00
620 Polycom Eagle Eye V Ca	10/14/2015	10/14/2015	12,259.30			12,259.30	9,195.00	2,452.00		11,647.00
611 Yates Skip Bonnet E-Z F	10/24/2015	10/24/2015	30,147.20			30,147.20	11,055.00	3,015.00		14,070.00
628 ET Globe Valve - Fisher I	2/8/2016	2/8/2016	8,978.72			8,978.72	3,068.00	898.00		3,966.00
625 LG 79" TV	3/14/2016	3/14/2016	8,040.11			8,040.11	5,360.00	1,608.00		6,968.00
626 Cable Puller Assembly	3/16/2016	3/16/2016	5,763.01			5,763.01	1,872.00	576.00		2,448.00
651 Yates Skip Bonnet W/De	3/25/2016	3/25/2016	16,040.25			16,040.25	5,213.00	1,604.00		6,817.00
627 IVAC PV500 Vacuum Sy	5/27/2016	5/27/2016	47,984.50			47,984.50	14,794.00	4,798.00		19,592.00
654 Snow Plow 8'6" VPlow Ji	12/6/2016	12/6/2016	6,594.00			6,594.00	1,703.00	659.00		2,362.00
656 Milliken 16"Eccent.Plug	1/3/2017	1/3/2017	10,030.30			10,030.30	2,508.00	1,003.00		3,511.00
657 Milliken 8" Eccent. Plug	1/3/2017	1/3/2017	5,746.55			5,746.55	1,437.00	575.00		2,012.00
658 McCrometer Mag-Flo Me	1/3/2017	1/3/2017	6,979.65			6,979.65	1,745.00	698.00		2,443.00
676 Radon Removal System	6/30/2017	6/30/2017	421,974.38			421,974.38	84,394.00	42,197.00		126,591.00
678 Atlas Copco Air Compres	6/30/2017	6/30/2017	26,300.00			26,300.00	5,260.00	2,630.00		7,890.00
679 Atlas Copco Air Dryer Ri	6/30/2017	6/30/2017	7,425.00			7,425.00	1,484.00	742.00		2,226.00
680 RO Reverse Osmosis Sys	6/30/2017	6/30/2017	49,328.24			49,328.24	9,866.00	4,933.00		14,799.00
681 FCU-1 Fan-RadonRemBl	6/30/2017	6/30/2017	7,556.82			7,556.82	1,512.00	756.00		2,268.00
692 Mini Split HVAC Refuge	7/24/2018	7/24/2018	7,143.25			7,143.25	655.00	714.00		1,369.00

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment & Fixtures										
693 Mini Split HVAC 4850L	9/19/2018	9/19/2018	7,143.25			7,143.25	536.00	714.00		1,250.00
694 Forklift 5000#UsedMode	11/8/2018	11/8/2018	16,625.00			16,625.00	1,108.00	1,662.00		2,770.00
695 LZ Water Tank Modifica	12/1/2018	12/1/2018	123,441.52			123,441.52	4,800.00	8,229.00		13,029.00
696 (3) Hitachi Projector/Len	12/20/2018	12/20/2018	45,436.00			45,436.00	2,272.00	4,544.00		6,816.00
703 HVAC Unit E & O Bldg.	6/25/2019	6/25/2019	13,134.62			13,134.62		1,313.00		1,313.00
704 HVAC Unit E & O Bldg.	6/25/2019	6/25/2019	13,134.63			13,134.63		1,313.00		1,313.00
726 Flygt27HP-Pump BS2670	7/1/2019	7/1/2019		22,870.00		22,870.00		2,287.00		2,287.00
706 (4) IT Air Cond. Mini Sp	7/10/2019	7/10/2019		21,651.00		21,651.00		2,165.00		2,165.00
707 (3) Natural Gas Water He	8/27/2019	8/27/2019		22,220.00		22,220.00		1,852.00		1,852.00
708 Yates Work Deck Screen	9/11/2019	9/11/2019		14,696.65		14,696.65		1,225.00		1,225.00
711 (2) Security Tilt-Away Gi	10/29/2019	10/29/2019		62,600.00		62,600.00		4,173.00		4,173.00
720 Boss Laser Engraver	1/24/2020	1/24/2020		9,997.00		9,997.00		417.00		417.00
723 3D Camera Insta360PRO	6/4/2020	6/4/2020		5,251.00		5,251.00		88.00		88.00
			10,639,149.33	159,285.65	(109,518.29)	10,688,916.69	5,399,419.94	637,382.12	(100,484.63)	5,936,317.43
150 - Furniture & Fixtures										
249 Blinds	6/1/2006	6/1/2006	1,877.92			1,877.92	1,877.25			1,877.25
250 6X8 Workstations - Adm	12/31/2008	12/31/2008	67,297.83			67,297.83	47,103.26	4,486.00		51,589.26
251 Blinds - Admin Bldg	2/1/2009	2/1/2009	5,035.75			5,035.75	5,034.82			5,034.82
			74,211.50	0.00	0.00	74,211.50	54,015.33	4,486.00	0.00	58,501.33
160 - Improvements										
189 Carpet - Admin Bldg	4/25/2006	4/25/2006	6,589.30			6,589.30	6,589.29			6,589.29
283 Office Remodel - Admin	6/1/2006	6/1/2006	19,584.00			19,584.00	19,584.00			19,584.00
284 Office Remodel/Painting	6/1/2006	6/1/2006	10,898.27			10,898.27	10,898.27			10,898.27
285 Yates Building Renovatio	2/14/2007	2/14/2007	16,714.32			16,714.32	4,281.43	334.00		4,615.43
263 Power Line East Sub Stat	7/27/2007	7/27/2007	31,222.00			31,222.00	6,864.44	624.00		7,488.44
269 Ross Guard Station	5/31/2008	5/31/2008	8,617.06			8,617.06	1,892.34	172.00		2,064.34
271 Ross Hoist Building	6/30/2008	6/30/2008	197,674.59			197,674.59	43,483.49	3,953.00		47,436.49
286 Kitchen Improvements -	6/30/2008	6/30/2008	5,792.72			5,792.72	1,275.85	116.00		1,391.85
259 Gas Line System (Existin	7/1/2008	7/1/2008	5,795.00			5,795.00	2,551.80	232.00		2,783.80
261 Parking Lot - Admin Are	7/1/2008	7/1/2008	60,000.00			60,000.00	33,000.00	3,000.00		36,000.00
264 Power Line Oro Hondo 6'	7/1/2008	7/1/2008	8,250.00			8,250.00	1,815.00	165.00		1,980.00
265 Power Line Ross 69KV P	7/1/2008	7/1/2008	25,000.00			25,000.00	5,500.00	500.00		6,000.00
267 Rail System Underground	7/1/2008	7/1/2008	61,267.89			61,267.89	13,475.36	1,225.00		14,700.36
275 Ross Yard (Gravel Yard)	7/1/2008	7/1/2008	22,277.00			22,277.00	6,126.93	557.00		6,683.93
282 Yates Yard (Gravel Yard)	7/1/2008	7/1/2008	16,282.20			16,282.20	4,477.06	407.00		4,884.06

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
160 - Improvements										
277 Yates Gas Line	11/24/2008	11/24/2008	17,695.65			17,695.65	7,492.90	708.00		8,200.90
288 Carpet/Vinyl - Admin Bldg	1/1/2009	1/1/2009	53,826.21			53,826.21	53,826.21			53,826.21
256 Communications - Ross S	2/18/2009	2/18/2009	10,340.00			10,340.00	7,119.78	689.00		7,808.78
257 Communications - Yates	2/18/2009	2/18/2009	57,716.63			57,716.63	39,762.59	3,848.00		43,610.59
266 Propane Storage Building	2/25/2009	2/25/2009	16,200.00			16,200.00	3,348.00	324.00		3,672.00
270 Ross Headframe Crusher	3/1/2009	3/1/2009	26,409.12			26,409.12	5,456.06	528.00		5,984.06
278 Yates Headframe/Crusher	3/1/2009	3/1/2009	33,519.74			33,519.74	6,923.46	670.00		7,593.46
280 Yates Safety/Dry Buildin	3/1/2009	3/1/2009	52,177.41			52,177.41	10,787.85	1,044.00		11,831.85
260 IT Room Electrical/Instal	3/4/2009	3/4/2009	41,618.32			41,618.32	21,503.64	2,081.00		23,584.64
279 Yates Hoist Building	4/14/2009	4/14/2009	159,110.28			159,110.28	32,615.55	3,182.00		35,797.55
272 Ross Pump System	6/12/2009	6/12/2009	963,663.60			963,663.60	388,682.00	38,547.00		427,229.00
258 Fiber Optic Network Syst	6/30/2009	6/30/2009	17,541.98			17,541.98	8,770.00	877.00		9,647.00
262 Power Distribution	6/30/2009	6/30/2009	783,887.52			783,887.52	156,780.00	15,678.00		172,458.00
268 Ross Dry Building	6/30/2009	6/30/2009	63,368.30			63,368.30	12,670.00	1,267.00		13,937.00
273 Ross Shaft	6/30/2009	6/30/2009	9,773,260.40			9,773,260.40	1,954,650.00	195,465.00		2,150,115.00
274 Ross Substation	6/30/2009	6/30/2009	277,760.27			277,760.27	55,550.00	5,555.00		61,105.00
276 WWTP Improvements	6/30/2009	6/30/2009	660,400.84			660,400.84	132,080.00	13,208.00		145,288.00
281 Yates Shaft	6/30/2009	6/30/2009	4,694,581.28			4,694,581.28	938,920.00	93,892.00		1,032,812.00
287 Admin Bldg Improvemen	6/30/2009	6/30/2009	382,643.40			382,643.40	76,530.00	7,653.00		84,183.00
407 Ross Substation Upgrade	3/1/2010	3/1/2010	79,000.94			79,000.94	14,747.00	1,580.00		16,327.00
409 Yates Shaft	4/1/2010	4/1/2010	2,185,614.49			2,185,614.49	404,336.00	43,712.00		448,048.00
402 LUX Surface Lab	5/1/2010	5/1/2010	1,563,830.79			1,563,830.79	286,706.00	31,277.00		317,983.00
403 Oro Hondo Substation Up	5/15/2010	5/15/2010	85,015.90			85,015.90	15,583.00	1,700.00		17,283.00
404 Pole Frame Building	6/1/2010	6/1/2010	14,183.70			14,183.70	2,580.00	284.00		2,864.00
408 Yates Fencing	6/15/2010	6/15/2010	10,469.70			10,469.70	4,751.00	523.00		5,274.00
401 Fiber Optic Network Syst	6/30/2010	6/30/2010	19,495.55			19,495.55	8,775.00	975.00		9,750.00
405 Power Distribution Upgr	6/30/2010	6/30/2010	341,565.29			341,565.29	61,479.00	6,831.00		68,310.00
406 Ross Pumping System	6/30/2010	6/30/2010	159,652.84			159,652.84	57,474.00	6,386.00		63,860.00
447 Yates Parking Lot Resurf	9/24/2010	9/24/2010	259,641.41			259,641.41	227,185.00	25,964.00		253,149.00
445 Majorana Shotcreting Im	10/15/2010	10/15/2010	268,602.24			268,602.24	78,339.00	8,953.00		87,292.00
428 Ross Dry Renovations	10/30/2010	10/30/2010	243,726.84			243,726.84	42,250.00	4,875.00		47,125.00
431 Yates E&O Dry Renovati	11/30/2010	11/30/2010	214,711.49			214,711.49	36,857.00	4,294.00		41,151.00
434 Communications Improv	6/30/2011	6/30/2011	89,807.33			89,807.33	47,896.00	5,987.00		53,883.00
435 Power Distribution Impro	6/30/2011	6/30/2011	108,274.04			108,274.04	17,320.00	2,165.00		19,485.00
436 Fiber Optic Network Syst	6/30/2011	6/30/2011	24,228.00			24,228.00	9,688.00	1,211.00		10,899.00

Cost of Fixed AssetsAccumulated Depreciation

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Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
160 - Improvements										
437 Ross Pump System Imprc	6/30/2011	6/30/2011	17,311.87			17,311.87	5,536.00	692.00		6,228.00
443 Davis Shotcreting Improv	6/30/2011	7/1/2011	857,538.24			857,538.24	228,680.00	28,585.00		257,265.00
481 Improvements to Yates R	5/1/2012	5/1/2012	42,785.45			42,785.45	6,135.00	856.00		6,991.00
510 Davis Campus Laborator	11/30/2012	11/30/2012	8,453,584.87			8,453,584.87	1,855,091.00	281,786.00		2,136,877.00
527 Ross Gas Line	1/14/2013	1/14/2013	15,873.11			15,873.11	4,127.00	635.00		4,762.00
521 4850 Refuge Area	2/1/2013	2/1/2013	175,941.14			175,941.14	56,447.00	8,797.00		65,244.00
642 Ross Campus Shotcrete F	7/1/2015	7/1/2015	419,793.13			419,793.13	55,972.00	13,993.00		69,965.00
643 Ross Campus Laboratory	9/9/2015	9/9/2015	2,541,235.84			2,541,235.84	324,714.00	84,708.00		409,422.00
644 Ross Water Suppression :	2/8/2016	2/8/2016	232,972.47			232,972.47	31,840.00	9,319.00		41,159.00
684 Thermal Insulation Davis	1/30/2017	1/30/2017	45,636.90			45,636.90	11,030.00	4,564.00		15,594.00
687 Surface Lab Bldg.IMP	9/15/2017	9/15/2017	461,088.32			461,088.32	16,907.00	9,222.00		26,129.00
697 Davis C.Laboratory Upgr	1/1/2019	1/1/2019	295,191.44			295,191.44	4,920.00	9,840.00		14,760.00
721 Ross Shaft Rehab Steel P	3/31/2020	3/31/2020		17,817,058.55		17,817,058.55		89,085.00		89,085.00
			37,808,458.63	17,817,058.55	0.00	55,625,517.18	7,992,648.30	1,085,300.00	0.00	9,077,948.30
170 - Improvements in Progress										
701 Impr.Prog.Mainten.Supp	6/30/2019	6/30/2019	246,173.05			246,173.05				0.00
725 Maintenance Support Fac	6/30/2020	6/30/2020		1,578,135.15		1,578,135.15				0.00
			246,173.05	1,578,135.15	0.00	1,824,308.20	0.00	0.00	0.00	0.00
180 - Infrastructure										
294 Road Gravel WWTP East	7/1/2008	7/1/2008	48,846.60			48,846.60	13,431.17	1,221.00		14,652.17
296 Road Gravel Yates Hillside	7/1/2008	7/1/2008	5,159.00			5,159.00	1,418.98	129.00		1,547.98
298 Sewer Line System	7/1/2008	7/1/2008	14,850.00			14,850.00	6,534.00	594.00		7,128.00
300 Water Line System (Histic	7/1/2008	7/1/2008	38,150.00			38,150.00	16,786.00	1,526.00		18,312.00
301 Water Line System (Othe	7/1/2008	7/1/2008	25,675.00			25,675.00	11,297.00	1,027.00		12,324.00
292 Concrete Cooling Basins	8/1/2008	8/1/2008	25,000.00			25,000.00	5,458.33	500.00		5,958.33
293 Concrete Vault System	8/1/2008	8/1/2008	25,000.00			25,000.00	5,458.33	500.00		5,958.33
290 Mill Reservoir	10/30/2008	10/30/2008	117,540.85			117,540.85	25,077.21	2,351.00		27,428.21
297 Sewer Line - Backwash t	11/1/2008	11/1/2008	155,156.08			155,156.08	66,197.50	6,206.00		72,403.50
291 Clarifier - WWTP	11/25/2008	11/25/2008	117,245.74			117,245.74	24,817.87	2,345.00		27,162.87
414 Grizzly Gulch Decant Pip	1/1/2011	1/1/2011	1,060,808.89			1,060,808.89	180,336.00	21,216.00		201,552.00
415 Ross Potable Water Line	1/1/2011	1/1/2011	24,810.00			24,810.00	8,432.00	992.00		9,424.00
655 Water Inflow Pipe System	1/3/2017	1/3/2017	241,210.06			241,210.06	24,120.00	9,648.00		33,768.00
665 Water Inflow Pipe Fusion	3/15/2017	3/15/2017	20,459.22			20,459.22	1,909.00	818.00		2,727.00
673 Ellison Gravel Road	6/12/2017	6/12/2017	25,400.25			25,400.25	2,646.00	1,270.00		3,916.00
674 Ellison Paved Road	6/12/2017	6/12/2017	13,550.65			13,550.65	706.00	339.00		1,045.00

Cost of Fixed AssetsAccumulated Depreciation

000 - SD Science & Technology Authority										
Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
180 - Infrastructure										
710 Ross Top WaterLine Hou	9/24/2019	9/24/2019		44,326.35		44,326.35		1,330.00		1,330.00
			1,958,862.34	44,326.35	0.00	2,003,188.69	394,625.39	52,012.00	0.00	446,637.39
190 - Land										
304 Land - Donated by Home	4/14/2006	4/14/2006	1,511,000.00			1,511,000.00				0.00
305 Land - Closing Costs	1/31/2007	1/31/2007	13,435.39			13,435.39				0.00
306 Land - Phase I Enviromen	6/30/2008	6/30/2008	4,000.00			4,000.00				0.00
307 Land - Phase II Site Asse	12/23/2008	12/23/2008	5,602.65			5,602.65				0.00
603 Ellison Option	6/30/2015	6/30/2015	45,260.00			45,260.00				0.00
672 Ellison Property	6/12/2017	6/12/2017	234,838.10			234,838.10				0.00
			1,814,136.14	0.00	0.00	1,814,136.14	0.00	0.00	0.00	0.00
200 - Other Non Dep										
309 Archive Materials - Gold	7/1/2008	7/1/2008	20,000.00			20,000.00				0.00
310 Archive Materials	7/1/2008	7/1/2008	50,000.00			50,000.00				0.00
			70,000.00	0.00	0.00	70,000.00	0.00	0.00	0.00	0.00
210 - Underground										
311 Underground - Closing C	1/31/2007	1/31/2007	90,686.99			90,686.99				0.00
312 Underground	1/31/2007	1/31/2007	10,658,650.00			10,658,650.00				0.00
			10,749,336.99	0.00	0.00	10,749,336.99	0.00	0.00	0.00	0.00
220 - Underground Improvements										
410 Improvements - Undergrc	6/30/2010	6/30/2010	1,210,109.78			1,210,109.78				0.00
444 Improvement Majorana E	10/31/2010	10/31/2010	159,204.14			159,204.14				0.00
446 Improvement Hazard Mit	5/31/2011	5/31/2011	60,774.93			60,774.93				0.00
442 Improvements Davis Exca	6/30/2011	7/1/2011	4,460,860.74			4,460,860.74				0.00
479 Improvement to UG Haz	6/30/2012	6/30/2012	69,223.43			69,223.43				0.00
530 Improvements-Haz.Mit.2	6/30/2013	6/30/2013	51,019.29			51,019.29				0.00
556 Hazard Mitigation Inprov	6/30/2014	6/30/2014	294,893.16			294,893.16				0.00
567 D.Campus Excav.Dehum	7/22/2014	7/22/2014	31,530.99			31,530.99				0.00
602 Hazard Mitigation 2015	6/30/2015	6/30/2015	163,874.47			163,874.47				0.00
641 Ross Campus Excavation	7/1/2015	7/1/2015	329,557.51			329,557.51				0.00
646 Hazard Mitigation Yates	6/21/2016	6/21/2016	187,570.00			187,570.00				0.00
664 Haz. Mit. Yates Tunnel	6/30/2017	6/30/2017	169,000.00			169,000.00				0.00
			7,187,618.44	0.00	0.00	7,187,618.44	0.00	0.00	0.00	0.00

Cost of Fixed AssetsAccumulated Depreciation

Summary

000 - SD Science & Technology Authority

	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
110 - Automobiles	118,962.53	137,322.00	(18,948.05)	237,336.48	80,491.94	14,060.00	(17,053.25)	77,498.69
120 - Building	8,120,616.34	0.00	(416,439.47)	7,704,176.87	2,078,965.29	158,684.00	(101,521.07)	2,136,128.22
130 - Computer Hardware	447,815.17	123,117.73	0.00	570,932.90	347,109.61	54,225.00	0.00	401,334.61
140 - Equipment & Fixtures	10,639,149.33	159,285.65	(109,518.29)	10,688,916.69	5,399,419.94	637,382.12	(100,484.63)	5,936,317.43
150 - Furniture & Fixtures	74,211.50	0.00	0.00	74,211.50	54,015.33	4,486.00	0.00	58,501.33
160 - Improvements	37,808,458.63	17,817,058.55	0.00	55,625,517.18	7,992,648.30	1,085,300.00	0.00	9,077,948.30
170 - Improvements in Progress	246,173.05	1,578,135.15	0.00	1,824,308.20	0.00	0.00	0.00	0.00
180 - Infrastructure	1,958,862.34	44,326.35	0.00	2,003,188.69	394,625.39	52,012.00	0.00	446,637.39
190 - Land	1,814,136.14	0.00	0.00	1,814,136.14	0.00	0.00	0.00	0.00
200 - Other Non Dep	70,000.00	0.00	0.00	70,000.00	0.00	0.00	0.00	0.00
210 - Underground	10,749,336.99	0.00	0.00	10,749,336.99	0.00	0.00	0.00	0.00
220 - Underground Improvements	7,187,618.44	0.00	0.00	7,187,618.44	0.00	0.00	0.00	0.00
	79,235,340.46	19,859,245.43	(544,905.81)	98,549,680.08	16,347,275.80	2,006,149.12	(219,058.95)	18,134,365.97

Cost of Fixed AssetsAccumulated Depreciation

Combined	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
110 - Automobiles	118,962.53	137,322.00	(18,948.05)	237,336.48	80,491.94	14,060.00	(17,053.25)	77,498.69
120 - Building	8,120,616.34	0.00	(416,439.47)	7,704,176.87	2,078,965.29	158,684.00	(101,521.07)	2,136,128.22
130 - Computer Hardware	447,815.17	123,117.73	0.00	570,932.90	347,109.61	54,225.00	0.00	401,334.61
140 - Equipment & Fixtures	10,639,149.33	159,285.65	(109,518.29)	10,688,916.69	5,399,419.94	637,382.12	(100,484.63)	5,936,317.43
150 - Furniture & Fixtures	74,211.50	0.00	0.00	74,211.50	54,015.33	4,486.00	0.00	58,501.33
160 - Improvements	37,808,458.63	17,817,058.55	0.00	55,625,517.18	7,992,648.30	1,085,300.00	0.00	9,077,948.30
170 - Improvements in Progress	246,173.05	1,578,135.15	0.00	1,824,308.20	0.00	0.00	0.00	0.00
180 - Infrastructure	1,958,862.34	44,326.35	0.00	2,003,188.69	394,625.39	52,012.00	0.00	446,637.39
190 - Land	1,814,136.14	0.00	0.00	1,814,136.14	0.00	0.00	0.00	0.00
200 - Other Non Dep	70,000.00	0.00	0.00	70,000.00	0.00	0.00	0.00	0.00
210 - Underground	10,749,336.99	0.00	0.00	10,749,336.99	0.00	0.00	0.00	0.00
220 - Underground Improvements	7,187,618.44	0.00	0.00	7,187,618.44	0.00	0.00	0.00	0.00
	<u>79,235,340.46</u>	<u>19,859,245.43</u>	<u>(544,905.81)</u>	<u>98,549,680.08</u>	<u>16,347,275.80</u>	<u>2,006,149.12</u>	<u>(219,058.95)</u>	<u>18,134,365.97</u>

SD Science and Technology Authority
Consolidated Report 06/30/20
Inventory of Supplies

<u>Inventory of Supplies</u>	<u>Balance 2017</u>	<u>Additions</u> <u>2018</u>	<u>Deletions</u> <u>2018</u>	<u>Balance 2018</u>	<u>Additions</u> <u>2019</u>	<u>Deletions</u> <u>2019</u>	<u>Balance 2019</u>	<u>Additions 2020</u>	<u>Deletions 2020</u>	<u>Balance 2020</u>
Foundry Motors/Tuggers/Switches/Skips	\$ 779,000.00			\$ 779,000.00			\$ 779,000.00			\$ 779,000.00
Transformers in Foundry	\$ 94,346.30			\$ 94,346.30			\$ 94,346.30			\$ 94,346.30
Transformers in Machine Shop	\$ 114,650.00			\$ 114,650.00			\$ 114,650.00			\$ 114,650.00
(from 6Winze) 6800/8000 Pump/Motor Spares	\$ 23,975.00			\$ 23,975.00			\$ 23,975.00			\$ 23,975.00
Ropes	\$ 9,842.86			\$ 9,842.86			\$ 9,842.86			\$ 9,842.86
Transformers Refurbished (Machine Shop)	\$ 17,400.00			\$ 17,400.00			\$ 17,400.00			\$ 17,400.00
Shaft Level Pumps (from Homestake)	\$ 283,536.36			\$ 283,536.36		\$ 15,975.46	\$ 267,560.90			\$ 267,560.90
Benshaw Softstart Starters (3)	\$ 105,772.27			\$ 105,772.27			\$ 105,772.27			\$ 105,772.27
Used Joy Fans (2)	\$ 13,372.00			\$ 13,372.00			\$ 13,372.00			\$ 13,372.00
Baldor Motor (5000LSpare) S#S9069457-001 001	\$ 6,240.00			\$ 6,240.00			\$ 6,240.00			\$ 6,240.00
Flygt Pump (Yates Sump Spare) S#1070147	\$ 22,870.00			\$ 22,870.00			\$ 22,870.00	\$ 22,870.00		\$ -
Sandpiper Air Powered Dbl Diaph.PumpS#1905122	\$ 5,328.06			\$ 5,328.06			\$ 5,328.06			\$ 5,328.06
Cable from Improvements Progress	\$ 354,853.92			\$ 354,853.92			\$ 354,853.92			\$ 354,853.92
Tsurumi Pumps	\$ 70,513.79		\$ 40,994.37	\$ 29,519.42		\$ 29,519.42	\$ -			\$ -
10,000KVA Transformer S# 161916B	\$ 10,000.00			\$ 10,000.00			\$ 10,000.00			\$ 10,000.00
Termination Cabinets (4) for Ross Pump System	\$ 15,914.48			\$ 15,914.48			\$ 15,914.48			\$ 15,914.48
#5 Shaft Axial Flow Mine Fan S# 3533	\$ 47,245.51			\$ 47,245.51			\$ 47,245.51			\$ 47,245.51
DAD Pump S#882157	\$ 140,191.41			\$ 140,191.41			\$ 140,191.41			\$ 140,191.41
DAD Pump S#882158-TR121310JT	\$ 131,559.36			\$ 131,559.36			\$ 131,559.36			\$ 131,559.36
(2) Siemen Motors Malloy (for2 X 11 DAD Pumps)	\$ 94,011.92			\$ 94,011.92			\$ 94,011.92			\$ 94,011.92
Sky Climber Electric 208V Hoist	\$ 5,880.13			\$ 5,880.13			\$ 5,880.13			\$ 5,880.13
AC Generator 1974 kato S#73392	\$ 40,036.00		\$ 40,036.00	\$ -			\$ -			\$ -
Delta Optical Comparator	\$ 21,783.37			\$ 21,783.37			\$ 21,783.37			\$ 21,783.37
(4) Skid Tanks Pumping System	\$ -	\$ 15,668.98		\$ 15,668.98			\$ 15,668.98			\$ 15,668.98
Concrete Busket Dumas	\$ -	\$ 10,797.51		\$ 10,797.51		\$ 10,797.51	\$ -			\$ -
Cement Hopper E-Z Fab	\$ -	\$ 10,614.00		\$ 10,614.00		\$ 10,614.00	\$ -			\$ -
Surface Lab Water Tank	\$ -	\$ 8,373.54		\$ 8,373.54			\$ 8,373.54			\$ 8,373.54
Portable Generator S#J100VC06016590	\$ -	\$ 3,839.00		\$ 3,839.00			\$ 3,839.00			\$ 3,839.00
Dry Ice Blast Unit	\$ -	\$ 2,663.00	\$ 2,663.00	\$ -			\$ -			\$ -
Cisco Nexus Core Switch 93180YC-FX				\$ -	\$ 10,909.00		\$ 10,909.00		\$ 10,909.00	\$ -
Pumps from DOE Property Transfer								\$ 135,712.40		\$ 135,712.40
Totals	\$ 2,408,322.74	\$ 51,956.03	\$ 81,030.37	\$ 2,378,585.40	\$ 10,909.00	\$ 66,906.39	\$ 2,320,588.01	\$ 135,712.40	\$ 33,779.00	\$ 2,422,521.41

DOE Abandoned Property

Year to Date Reconciliation - 7/1/2019 through 6/30/2020

June 30, 2020

Year to Date 7/1/2019 through 6/30/2020

Cost of Fixed Assets

Accumulated Depreciation

000 - DOE Abandoned Property

Sys ID Description	Acquire	In Service	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment										
3 Figure 8 Fiber Optic Cabl	6/30/2020	6/30/2020		5,790.00		5,790.00				0.00
5 Davis Campus 4850VM]	6/30/2020	6/30/2020		9,777.97		9,777.97				0.00
6 Fusion Splicer W/Cleave	6/30/2020	6/30/2020		8,446.90		8,446.90				0.00
7 Baldor 400HP Power Mo	6/30/2020	6/30/2020		5,793.34		5,793.34				0.00
9 Track-O-Lift Stair Clim	6/30/2020	6/30/2020		9,121.37		9,121.37				0.00
10 Titan Air Make-Up Unit	6/30/2020	6/30/2020		11,185.37		11,185.37				0.00
11 Titan Air Make-Up Unit	6/30/2020	6/30/2020		11,185.37		11,185.37				0.00
12 2016 John Deere 324K L	6/30/2020	6/30/2020		58,072.40		58,072.40				0.00
13 Orenco Septic System	6/30/2020	6/30/2020		8,193.69		8,193.69				0.00
14 Bosch Buderus Boiler - F	6/30/2020	6/30/2020		10,841.04		10,841.04				0.00
15 Bosch Buderus Boiler - F	6/30/2020	6/30/2020		10,841.04		10,841.04				0.00
16 Bosch Buderus Boiler - F	6/30/2020	6/30/2020		10,841.04		10,841.04				0.00
17 Draeger RZ 7000	6/30/2020	6/30/2020		5,097.51		5,097.51				0.00
23 Crane Test Weights	6/30/2020	6/30/2020		11,060.85		11,060.85				0.00
24 BullsEye Training Packag	6/30/2020	6/30/2020		15,807.00		15,807.00				0.00
25 Fletcher Feed Assembly	6/30/2020	6/30/2020		11,602.09		11,602.09				0.00
26 Locomotive Controller	6/30/2020	6/30/2020		6,035.71		6,035.71				0.00
27 Bobcat 2018 MT85 W/A	6/30/2020	6/30/2020		24,814.32		24,814.32				0.00
29 Kubota 2019 Diesel RTV	6/30/2020	6/30/2020		12,812.68		12,812.68				0.00
30 Kubota 2019 Diesel RTV	6/30/2020	6/30/2020		12,812.68		12,812.68				0.00
31 Kubota 2019 Diesel RTV	6/30/2020	6/30/2020		12,812.68		12,812.68				0.00
32 Battery Tray - 8T Locom	6/30/2020	6/30/2020		8,769.56		8,769.56				0.00
33 Battery Tray - 8T Locom	6/30/2020	6/30/2020		8,769.56		8,769.56				0.00
			0.00	290,484.17	0.00	290,484.17	0.00	0.00	0.00	0.00

Cost of Fixed Assets

Accumulated Depreciation

Combined	Beginning	Additions	Retired	Ending	Beginning	YTD 6/30/2020	Retired	Ending
140 - Equipment	0.00	290,484.17	0.00	290,484.17	0.00	0.00	0.00	0.00
	0.00	290,484.17	0.00	290,484.17	0.00	0.00	0.00	0.00

SD Science & Technology A
Project Non-Labor Detail Report

Date/Time: 04/16/20 03:17 CH

Fiscal Year: 8000.026.1.01.03.BRG1
Project: 8000.026.1.01.03.BRG1
Project Description: DOE-BRG Fixed AssetsNoG/A
Organization: 1.01.01.00
Prime Contract No: DE-AC02-07CH11359
Subcontract No: 629760
Purchase Order No:
Project Manager: Mike Headley

Start: 2020 **End:** 2020
Status: Active
Project Classification: DIRECT PROJECT
Project Type: CPFF
Period of Performance: 10/01/16 to 09/30/19
Customer: 8000-026
Project Abbrev: 113BR

*DOE Property under
 FRA Subcontract.
 To be transferred to SDSTA
 (in process.)*

Name	JE No./ Vchr No.	Invoice	Transaction Description	Fiscal Year	Pd	Amount
5100-0045-000 CAPITAL OUTLAY >\$5K						
	10		(3)Locos/BatteriesReceived	2020	5	117,090.00
R.A. Warren Equipment LTD	32825 70159		Batteries 24 CR85-13 (2)	2020	1	22,157.00
TSI Incorporated	33300 91131473		Respirator Fit Tester/Ad. Kits	2020	2	13,594.41
Crum Electric Supply	33419 2105109-00		350 - HP VFD's Spendrup Fan	2020	2	35,794.84
Dakota Riggers	33738 0504883-IN		Electric Hoist 5-Ton/Oro Hondo	2020	3	7,007.81
WireCo World Group	33972 632379 RI		1 7/8" 6X30G-SFC Wire Rope (2)	2020	3	145,680.20
Lead-Deadwood Sanitary Di	33973 09/27/19		Omni 8C2 1000G Water Meter	2020	3	8,006.00
WireCo World Group	34080 632561 RI		1 5/8" HoistRope (1 Reel)	2020	3	68,808.60
Jenner Equipment Company	34211 ES15118		Kubota RTV Utility X1140WL-H	2020	4	15,340.84
Silver State Wire Rope	34494 266823		(2) 8 Pair Galv. Dog Ropes	2020	4	159,784.09
Northern Dewatering, Inc.	34543 37668		(2) 3HP Flygt Pumps	2020	4	11,128.30
Electric Vehicle Control	34947 14030 A		Locom.(3)BattChrg(3)FinalPaym.	2020	5	78,060.00
Crum Electric Supply	35131 2105109-01		Lightening/SurgeProt./LoadReac	2020	5	3,680.78
Subtotal for 5100-0045-000 CAPITAL OUTLAY >\$5K						686,132.87
Subtotal for 8000.026.1.01.03.BRG1 DOE-BRG Fixed AssetsNoG/A						686,132.87

LBNL subcontract #7255146

Black print=
Fermilab #s
Red print=
historical #s

[illegible]

At the close of an agreement, ALL Government Furnished Property (GFP) and Subcontractor Acquired Property (SAP) including materials must be accounted for regardless of the value of the property.

Residual Materials: Remaining property that may be incorporated into or attached to a property item. It includes, but is not limited to precious metals, raw or processed materials, parts, components, assemblies or supplies

For the purpose of Indicating Condition of Property, please use the following codes:

Page 79 of 238

**PROPERTY MANAGEMENT SYSTEM ASSESSMENT
PROPERTY REPORT CERTIFICATE
PROPERTY REPORT**

Subcontract Number: **630223**

Black print=
Fermilab #s
Red print=
historical #s

Date: 6.19.19

Subcontractor Property Identification Number	Qty	Property Description, Manufacturer Name, Agreement No.	DOE/FRA Property Number	SDSTA Asset #	Serial Number	Model Number	Location	Acquisition Date	Condition at purchase	Grams	Unit Cost	Total Cost	Tagged	Notes
1	1	Slack Rope System Hardware					Ross	3/2/2018	1		\$ 63,917.00	\$ 63,917.00		Contract #2013-39 CO#14
2	1	Dog System Retrofit Kit					Ross	3/8/2018	1		\$ 36,800.00	\$ 36,800.00		Contract #2013-39 CO#15

At the close of an agreement, ALL Government Furnished Property (GFP) and Subcontractor Acquired Property (SAP) including materials must be accounted for regardless of the value of the property.

Residual Materials: Remaining property that may be incorporated into or attached to a property item. It includes, but is not limited to precious metals, raw or processed materials, parts, components, assemblies or supplies

CONDITION CODES		
For the purpose of indicating Condition of Property, please use the following codes:		
Condition Code	Brief Description	Expanded Definition
1	Excellent	Property which is in new condition or unused condition and can be used immediately without modifications or repairs.
4	Usable	Property which shows some wear, but can be used without significant repair.
7	Reparable	Property which is unusable in its current condition but can be economically repaired.
X	Salvage	Property which has value in excess of its basic material content but repair or rehabilitation is impractical and/or uneconomical.
S	Scrap	Property which has no value except for its basic material content.

PROPERTY MANAGEMENT SYSTEM ASSESSMENT
PROPERTY REPORT CERTIFICATE
PROPERTY REPORT

Cooperative Agreement#DE-SC0020216

Black print=
Fermilab #s
Red print=
historical #s

Date: 6/30/20

Subcontractor Property Identification Number	Qty	Property Description, Manufacturer Name, Agreement No.	DOE/property Number	SDSTA Asset #	Serial Number	Model Number	Location	Acquisition Date	Condition at purchase	Grams	Unit Cost	Total Cost	Tagged	Notes
1	2	Chillers			11515M90548502 & 11551M90548501	Wolff Plumbing	Davis Campus	2019-08	1	n/a	\$ 87,522.00	\$ 175,044.00		PO#14428 with Wolff's Plumbing
2	1	UTV Tracks		OH-TMU06-01 #100 Kubota		Jenner Equipment Company	Yates Head Frame	2019-12	1	n/a	\$ 5,270.00	\$ 5,270.00		PO#15096 Jenner Equipment
4	1	Tool Cat			AHG817104	Jenner Equipment Company	Surface	2019-12	1	n/a	\$ 56,099.00	\$ 56,099.00		PO#15165
5	1	Kutbota 4 Seat Cab				Jenner Equipment Company	Surface Yates Shaft	2020-02	1	n/a	\$ 6,097.00	\$ 6,097.00		PO#15156
6	1	1.8 Cubic Yd Western Sander		SN-XXS99-02 #136 Dodge Ram Asset # VH-XXS99-36		Jacobs Welding	Surface	2019-12	1	n/a	\$ 7,944.59	\$ 7,944.59		PO#15174
7	1	Controller for 1.8 Cubic Yd Western Sander		SN-XXS99-02 #136 Dodge Ram Asset # VH-XXS99-36		Jacobs Welding	Surface	2019-12	1	n/a	\$ 1,281.68	\$ 1,281.68		PO#15174
8	1	Liquid Scintillation Analyzer			SGL052191238	Perkins Elmer	Surface lab 1st Floor Storage Room	2019-12	1	n/a	\$ 35,190.00	\$ 35,190.00		PO#15127
9	1	AC Utility UG Truck		OH-XXU99-01	ACUT-001	Johson Industries	Underground	2020-03	1	n/a	\$ 15,000.00	\$ 15,000.00		PO#15746
10	1	Automation Refrig. Sample			605800005:220B00057	Tech Sales	WWTP	2020-02	1	n/a	\$ 5,911.00	\$ 5,911.00		PO#15605
11	1	Laser Flow System			60-4307-018	Tech Sales	WWTP	2020-02	1	n/a	\$ 17,933.00	\$ 17,933.00		PO#15605
12	1	Submersible Cable				Hydro Resource	Underground Deep Well Pump	2017-12	1	n/a	\$47,285.00	\$47,285.00		2017-37

13	1	High Pressure Tranducer w/cable				Hydro Resource	Underground Deep Well Pump	2017-12	1	n/a	\$9,445.00	\$9,445.00		2017-37
14	1	550 HP Motor				Hydro Resource	on order	2020-01	1	n/a	\$107,285.00	\$107,285.00		PO#15462
15	1	Seal Section HS83 675 Series				Hydro Resource	on order	2020-01	1	n/a	\$29,605.00	\$29,605.00		PO#15462
16	1	8 Stage Pump				Hydro Resource	on order	2020-01	1	n/a	\$56,385.00	\$56,385.00		PO#15462
17	1	Submersible Cable				Hydro Resource	on order	2020-01	1	n/a	\$ 39,105.00	\$ 39,105.00		PO#15462
19	1	Transducer Cable				Hydro Resource	on order	2020-01	1	n/a	\$ 9,285.00	\$ 9,285.00		PO#15462
20	3	Refuge Chambers				MineArc	Underground	2020-04	1	n/a	\$ 58,000.00	\$174,000.00		Contract 2019-46
21	1	CCII-VD Cryo Cycle Cryostat				Mirion Technologies	Davis Campus	2020-04	1	n/a	\$ 27,133.00	\$ 27,133.00		PO#15541
22	1	3 Ton Locomotive Battery	BT-XXU99-13	4110		Electric Vehicle Controllers	Yates Shaft	2020-07	1	n/a	\$ 7,200.00	\$ 7,200.00		PO#15553
23	1	Radon Monitor Progeny			APM0296	Bertin Corp	Jaret Heise Office	2020-07	1	n/a	\$ 6,572.70	\$ 6,572.70		PO#16118
24	1	Radon Monitor Alpha Guard			AG000243	Bertin Corp	Jaret Heise Office	2020-07	1	n/a	\$ 12,523.50	\$ 12,523.50		PO#16118
25	1	Chexter Valve W/Seal				Northwest Pipe	Pipe Shop	2020-04	1	n/a	\$ 7,187.50	\$ 7,187.50		PO#15273

[illegible]

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X	Salvage	Property which has value in excess of its basic material content but repair or rehabilitation is impractical and/or uneconomical.
5	Scrap	Property which has no value except for its basic material content.

At the close of an agreement, ALL Government Furnished Property (GFP) and Subcontractor Acquired Property (SAP) including materials must be accounted for regardless of the value of the property.

Residual Materials: Remaining property that may be incorporated into or attached to a property item. It includes, but is not limited to precious metals, raw or processed materials, parts, components, assemblies or supplies

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PER DIEM PAYMENTS MADE TO BOARD MEMBERS IN FY 2020

<u>Date</u>	<u>Name</u>	<u>Purpose</u>	<u>Amount</u>
07/12/19	Peterson, Casey C.	Misc SDSTA business, phone calls.	75.00
07/26/19	Peterson, Casey C.	Attended LZ Collab at SDSM&T (one day) and social on Sunday, Jul 14	150.00
08/23/19	Peterson, Casey C.	SDSTA business re: internal control comments, personnel and various calls about the potential STEM Inst.	75.00
09/06/19	Dykhouse, Dana J.	9/3 Audit Committee Teleconference.	75.00
09/06/19	Lebrun, Patricia O.	9/3 Audit Committee Teleconference.	75.00
09/06/19	Peterson, Casey C.	9/3-9/5 Travel to Perimeter Institute in Canada with Mike, Elizabeth, Jaret and Debra W.	225.00
09/20/19	Dykhouse, Dana J.	9/19/19 SDSTA Quarterly BoD Meeting on site	75.00
09/20/19	Lebrun, Patricia O.	9/19/19 SDSTA Quarterly BoD Meeting on site	75.00
09/20/19	Peterson, Casey C.	9/19/19 SDSTA Quarterly BoD Meeting on site; misc calls with MH and review of comprehensive financial report with NG	225.00
09/20/19	Wilson, Robert J.	9/19/19 SDSTA Quarterly BoD Meeting on site	75.00
10/04/19	Lebrun, Patricia O.	9/26/19 Internal Controls vendor CLA meet and greet via telephone	75.00
10/04/19	Peterson, Casey C.	9/24/19 visit with Sen Rounds	75.00
10/18/19	Peterson, Casey C.	10/14-10/17 visit MSRI (STEM institute) in Bay Area with dialogue, LLC	300.00
11/01/19	Dykhouse, Dana J.	10/31/19 SDSTA BoD Special Telephonic Meeting	75.00
11/01/19	Lebrun, Patricia O.	10/31/19 SDSTA BoD Special Telephonic Meeting	75.00
11/01/19	Peterson, Casey C.	10/21/19 Participated in Foundation Director candidate interviews	150.00
11/01/19	Wilson, Robert J.	10/31/19 SDSTA BoD Special Telephonic Meeting	75.00
11/15/19	Peterson, Casey C.	11/6/19 Participated in 2nd interview with Foundation Director candidate	75.00
12/13/19	Aprahamian, Ani	12/12/19 Participated in quarterly SDSTA BoD Mtg by phone	75.00
12/13/19	Dykhouse, Dana J.	12/12/19 Participated in quarterly SDSTA BoD Mtg by phone	75.00
12/13/19	Lebrun, Patricia O.	12/12/19 Participated in quarterly SDSTA BoD Mtg by phone	75.00
12/13/19	Peterson, Casey C.	12/10/19 - Participated in GOED Site Visit	150.00
		12/12/19 Attended quarterly SDSTA BoD Mtg in person	
12/13/19	Wilson, Robert J.	12/12/19 Participated in quarterly SDSTA BoD Mtg by phone	75.00
12/27/19	Aprahamian, Ani	12/27/19 SDSTA BoD Special Telphonic Meeting	75.00
12/27/19	Dykhouse, Dana J.	12/27/19 SDSTA BoD Special Telphonic Meeting	75.00
12/27/19	Lebrun, Patricia O.	12/4/19 Participated in Cultural Advisory Meeting in person	75.00
12/27/19	Peterson, Casey C.	12/27/19 SDSTA BoD Special Telphonic Meeting	75.00

<u>Date</u>	<u>Name</u>	<u>Purpose</u>	<u>Amount</u>
12/27/19	Wilson, Robert J.	12/27/19 SDSTA BoD Special Telephonic Meeting	75.00
02/21/20	Peterson, Casey C.	2/20/20 teleconference with Fermilab Director Nigel Lockyer	75.00
03/06/20	Dykhous, Dana J.	2/25/20 Special Telephonic Board Mtg	75.00
03/06/20	Lebrun, Patricia O.	2/25/20 Special Telephonic Board Mtg	75.00
03/06/20	Peterson, Casey C.	2/25/20 Special Telephonic Board Mtg 3/2-3/3/20 Attended Strategic Project Advisory Cmte (SPAC) Mtg	225.00
03/06/20	Wilson, Robert J.	2/25/20 Special Telephonic Board Mtg	75.00
03/20/20	Aprahamian, Ani	3/19/20 Quarterly Board Mtg, telephonic	75.00
03/20/20	Dykhous, Dana J.	3/19/20 Quarterly Board Mtg, telephonic	75.00
03/20/20	Lebrun, Patricia O.	3/19/20 Quarterly Board Mtg, telephonic	75.00
03/20/20	Peterson, Casey C.	3/13/20 Review contract, SDSTA business 3/18/20 Review emergency docs related to COVID-19 for SDSTA 3/19/20 Quarterly Board Mtg, telephonic	225.00
03/20/20	Wilson, Robert J.	3/19/20 Quarterly Board Mtg, telephonic	75.00
04/03/20	Dykhous, Dana J.	3/25/20 Emergency Board Mtg, telephonic	75.00
04/03/20	Lebrun, Patricia O.	3/25/20 Emergency Board Mtg, telephonic	75.00
04/03/20	Peterson, Casey C.	3/24/20 Review SDSTA Resolution 2020-01 3/25/20 Emergency Board Mtg, telephonic 3/31/20 SDSTA discussions with Exec Mgmt relating to essential ops 4/1/20 SDSTA discussions with Exec Mgmt and Tim Engel	300.00
04/03/20	Wilson, Robert J.	3/25/20 Emergency Board Mtg, telephonic	75.00
04/17/20	Peterson, Casey C.	4/9/20 SDSTA discussions with Exec Mgmt related to COVID-19	75.00
05/29/20	Dykhous, Dana J.	5/20/20 Met as Nominating Cmte to discuss election of officers	75.00
05/29/20	Peterson, Casey C.	5/20-5/22/20 Participated in LBNF Directors Review	225.00
06/12/20	Lebrun, Patricia O.	6/1/20 Audit Committee Teleconference Meeting	75.00
06/12/20	Peterson, Casey C.	6/10/20-6/11/20 Misc teleconferences with Mike and Mike, Tim and KC	150.00
06/26/20	Aprahamian, Ani	6/25/20 SDSTA Annual Board Meeting	75.00
06/26/20	Dykhous, Dana J.	6/25/20 SDSTA Annual Board Meeting	75.00
06/26/20	Lebrun, Patricia O.	6/25/20 SDSTA Annual Board Meeting	75.00
06/26/20	Peterson, Casey C.	6/25/20 SDSTA Annual Board Meeting in person	75.00
06/26/20	Wilson, Robert J.	6/25/20 SDSTA Annual Board Meeting	75.00
			5,400.00

<u>Date</u>	<u>Name</u>	<u>Purpose</u>	<u>Amount</u>
<u>ANI APRAHAMIAN</u>			
12/13/19	Aprahamian, Ani	12/12/19 Participated in quarterly SDSTA BoD Mtg by phone	75.00
12/27/19	Aprahamian, Ani	12/27/19 SDSTA BoD Special Telephonic Meeting	75.00
03/20/20	Aprahamian, Ani	3/19/20 Quarterly Board Mtg, telephonic	75.00
06/26/20	Aprahamian, Ani	6/25/20 SDSTA Annual Board Meeting	75.00
Aprahamian Total			\$300.00
<u>DANA DYKHOUSE</u>			
09/06/19	Dykhouse, Dana J.	9/3 Audit Committee Teleconference.	75.00
09/20/19	Dykhouse, Dana J.	9/19/19 SDSTA Quarterly BoD Meeting on site	75.00
11/01/19	Dykhouse, Dana J.	10/31/19 SDSTA BoD Special Telephonic Meeting	75.00
12/13/19	Dykhouse, Dana J.	12/12/19 Participated in quarterly SDSTA BoD Mtg by phone	75.00
12/27/19	Dykhouse, Dana J.	12/27/19 SDSTA BoD Special Telephonic Meeting	75.00
03/06/20	Dykhouse, Dana J.	2/25/20 Special Telephonic Board Mtg	75.00
03/20/20	Dykhouse, Dana J.	3/19/20 Quarterly Board Mtg, telephonic	75.00
04/03/20	Dykhouse, Dana J.	3/25/20 Emergency Board Mtg, telephonic	75.00
05/29/20	Dykhouse, Dana J.	5/20/20 Met as Nominating Cmte to discuss election of officers	75.00
06/26/20	Dykhouse, Dana J.	6/25/20 SDSTA Annual Board Meeting	75.00
Dykhouse Total			\$750.00
<u>PAT LEBRUN</u>			
09/06/19	Lebrun, Patricia O.	9/3 Audit Committee Teleconference.	75.00
09/20/19	Lebrun, Patricia O.	9/19/19 SDSTA Quarterly BoD Meeting on site	75.00
10/04/19	Lebrun, Patricia O.	9/26/19 Internal Controls vendor CLA meet and greet via telephone	75.00
11/01/19	Lebrun, Patricia O.	10/31/19 SDSTA BoD Special Telephonic Meeting	75.00
12/13/19	Lebrun, Patricia O.	12/12/19 Participated in quarterly SDSTA BoD Mtg by phone	75.00
12/27/19	Lebrun, Patricia O.	12/4/19 Participated in Cultural Advisory Meeting in person	75.00
03/06/20	Lebrun, Patricia O.	2/25/20 Special Telephonic Board Mtg	75.00
03/20/20	Lebrun, Patricia O.	3/19/20 Quarterly Board Mtg, telephonic	75.00
04/03/20	Lebrun, Patricia O.	3/25/20 Emergency Board Mtg, telephonic	75.00
06/12/20	Lebrun, Patricia O.	6/1/20 Audit Committee Teleconference Meeting	75.00
06/26/20	Lebrun, Patricia O.	6/25/20 SDSTA Annual Board Meeting	75.00
Lebrun Total			\$825.00

<u>Date</u>	<u>Name</u>	<u>Purpose</u>	<u>Amount</u>
<u>CASEY PETERSON</u>			
07/12/19	Peterson, Casey C.	Misc SDSTA business, phone calls.	75.00
07/26/19	Peterson, Casey C.	Attended LZ Collab at SDSM&T (one day) and social on Sunday, Jul 14	150.00
08/23/19	Peterson, Casey C.	SDSTA business re: internal control comments, personnel and various calls about the potential STEM Inst.	75.00
09/06/19	Peterson, Casey C.	9/3-9/5 Travel to Perimeter Institute in Canada with Mike, Elizabeth, Jaret and Debra W.	225.00
09/20/19	Peterson, Casey C.	9/19/19 SDSTA Quarterly BoD Meeting on site; misc calls with MH and review of comprehensive financial report with NG	225.00
10/04/19	Peterson, Casey C.	9/24/19 visit with Sen Rounds	75.00
10/18/19	Peterson, Casey C.	10/14-10/17 visit MSRI (STEM institute) in Bay Area with dialogue, LLC	300.00
11/01/19	Peterson, Casey C.	10/21/19 Participated in Foundation Director candidate interviews 10/31/19 SDSTA BoD Special Telephonic Meeting	150.00
11/15/19	Peterson, Casey C.	11/6/19 Participated in 2nd interview with Foundation Director candidate	75.00
12/13/19	Peterson, Casey C.	12/10/19 - Participated in GOED Site Visit 12/12/19 Attended quarterly SDSTA BoD Mtg in person	150.00
12/27/19	Peterson, Casey C.	12/27/19 SDSTA BoD Special Telphonic Meeting	75.00
02/21/20	Peterson, Casey C.	2/20/20 teleconference with Fermilab Director Nigel Lockyer	75.00
03/06/20	Peterson, Casey C.	2/25/20 Special Telephonic Board Mtg 3/2-3/3/20 Attended Strategic Project Advisory Cmte (SPAC) Mtg	225.00
03/20/20	Peterson, Casey C.	3/13/20 Review contract, SDSTA business 3/18/20 Review emergency docs related to COVID-19 for SDSTA 3/19/20 Quarterly Board Mtg, telephonic	225.00
04/03/20	Peterson, Casey C.	3/24/20 Review SDSTA Resolution 2020-01 3/25/20 Emergency Board Mtg, telephonic 3/31/20 SDSTA discussions with Exec Mgmt relating to essential ops 4/1/20 SDSTA discussions with Exec Mgmt and Tim Engel	300.00
04/17/20	Peterson, Casey C.	4/9/20 SDSTA discussions with Exec Mgmt related to COVID-19	75.00
05/29/20	Peterson, Casey C.	5/20-5/22/20 Participated in LBNF Directors Review	225.00
06/12/20	Peterson, Casey C.	6/10/20-6/11/20 Misc teleconferences with Mike and Mike, Tim and KC	150.00
06/26/20	Peterson, Casey C.	6/25/20 SDSTA Annual Board Meeting in person	75.00
Peterson Total			\$2,925.00

<u>Date</u>	<u>Name</u>	<u>Purpose</u>	<u>Amount</u>
<u>ROBERT WILSON</u>			
09/20/19	Wilson, Robert J.	9/19/19 SDSTA Quarterly BoD Meeting on site	75.00
11/01/19	Wilson, Robert J.	10/31/19 SDSTA BoD Special Telephonic Meeting	75.00
12/13/19	Wilson, Robert J.	12/12/19 Participated in quarterly SDSTA BoD Mtg by phone	75.00
12/27/19	Wilson, Robert J.	12/27/19 SDSTA BoD Special Telphonic Meeting	75.00
03/06/20	Wilson, Robert J.	2/25/20 Special Telephonic Board Mtg	75.00
03/20/20	Wilson, Robert J.	3/19/20 Quarterly Board Mtg, telephonic	75.00
04/03/20	Wilson, Robert J.	3/25/20 Emergency Board Mtg, telephonic	75.00
06/26/20	Wilson, Robert J.	6/25/20 SDSTA Annual Board Meeting	75.00
Wilson Total			\$600.00

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Executive Director's Report—Mr. Mike Headley

The Executive Director's Report includes the following:

- 8A. Declaration of surplus (1)—wood beams from old machine shop, attached.
- 8B. SURF Foundation update—Mr. Headley, informational.
- 8C. SURF Institute Science Study update—Ms. Elizabeth Freer, informational.
- 8D. SURF strategic planning update—Mr. Headley, informational.
- 8E. SDSTA quarterly update—informational, attached.
- 8F. LZ update—SDSTA Engineer Mr. Charles Maupin, presentation.
- 8G. LBNF update—Fermilab Far Site Project Manager Joshua Willhite, presentation.

See motion below.

Recommended Action:

Motion to accept the Executive Director's Report as presented.

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DECLARATION OF SURPLUS PROPERTY

In July 2020, the old Machine Shop on South Dakota and Science Technology Authority property was deconstructed to make way for a new Maintenance Support Facility. Approximately 200 feet of a large center support beam was salvaged during deconstruction. The full length of the beam was offered as a donation to the City of Lead. The City elected to take 60-feet of the beam. The remaining length was cut into four sections. Those four sections were surplus using the standard bid process.

Having no further use for this property, I hereby declare the four sections of beam surplus property.

Dated at Lead, South Dakota this 8th day of July, 2020.



Mike Headley
SDSTA Executive Director

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August Monthly Progress Report

Submitted September 14, 2020

Submitted to:

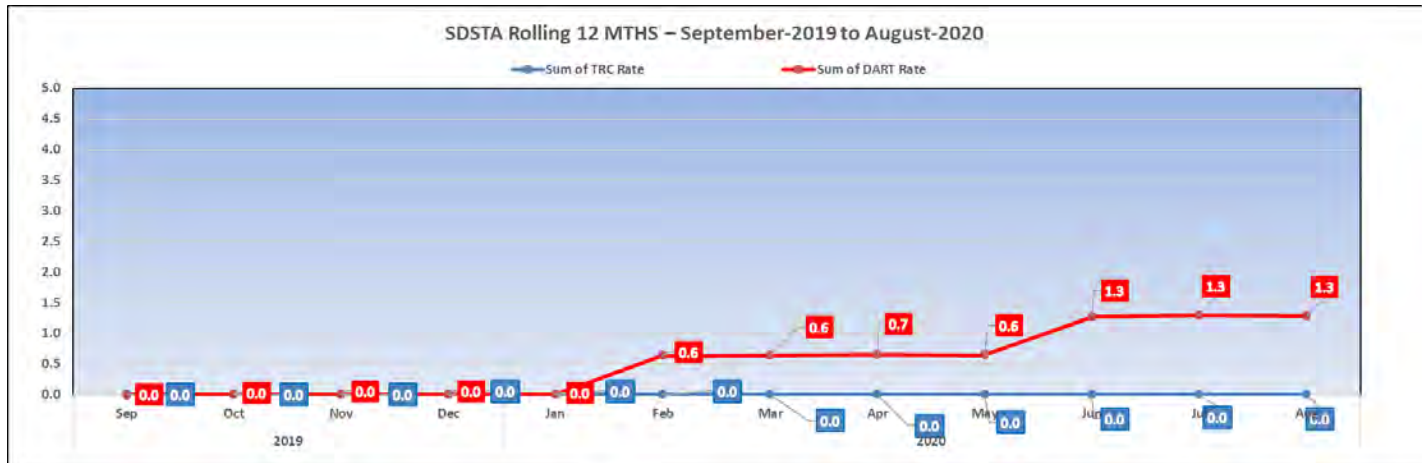
South Dakota Science and Technology Authority Board of Directors

Mike Headley

SDSTA Executive Director

Sanford Underground Research Facility Laboratory Director

Environment, Safety and Health Status



Note: Recordable incident monthly totals are shown in chart above

TRC (Total Recordable Case) = more than first aid treatment was given.

DART (Days Away Restricted Transferred) = more than first aid treatment was given AND restrictions were job-limiting, or the employee could not work (subset of a TRC). *Rates are subject to change

June - August 2020 DARTS/TRC

- 6/27: DART—SDSTA personnel injury to hand (grinder)

June - August 2020 First Aid Cases

- 7/15: Contractor puncture to finger; band-aid applied and tetanus vaccine given
- 8/28: SDSTA personnel sliver puncture to hand; band-aid applied

June - August 2020 Category 1 or 2 Events

- No events to report

June - August 2020 Category 3 Events

- No events to report

ESH Support

- Emergency Response Team (ERT) Supervisor / Competition Team Trainer position offered pending background and medical check
- Security Guard position filled in June
- New SDSTA Quality Assurance/Quality Control (QA/QC) Technical Writer started August 24

Work Accomplishments

- Conducted a COVID-19 Hazard Analysis for the Sanford Lab Homestake Visitor Center.
- Finalized the Explosive Management Communication Plan and Blast Permit.
- Developed and implemented Respiratory Fit Testing Equivalency Form for third parties.
- Demolished two onsite buildings with zero incidents.
- Hosted online interactive workshop with Orion (Registrar for ISO Compliance).
- 4850L Refuge Chamber was upgraded to 90-person capacity while supporting physical distancing.
- Industrial Hygienist/Safety Specialist Jason Rosdahl provided COVID-19 guidance in preparation for Neutrino Week.
- Purchased Guard Rail Kit for the HVAC replacement at Administration Building and for onsite work as needed.
- Participated in the Underground Blast Observation processes.
- Continued to conduct weekly Respirator Fit Testing for onsite personnel.

- Participated in the Emergency Notification Exercise.
- Conducted the Annual Physical and Hearing Testing for Emergency Response Team (ERT) and Hoist Operator Personnel.
- Conducted HAZMAT training in July.
- Developed and Implemented a COVID-19 Exposure Plan.
- Conducted several workshops with SURF Management on Severe Weather Response; Lightening Trigger Action Response Plan (TARP).
- Completed the final Guide Training Chapter Review; to be submitted to the Change Control Board (CCB) for review and approval.
- Completed reviews of the Work Alone Chapter.

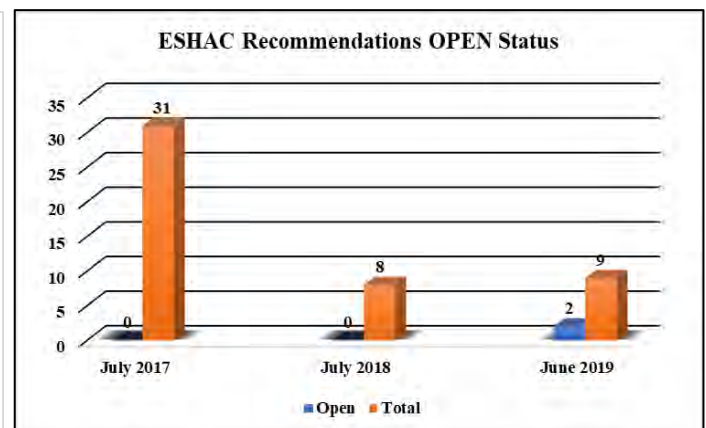
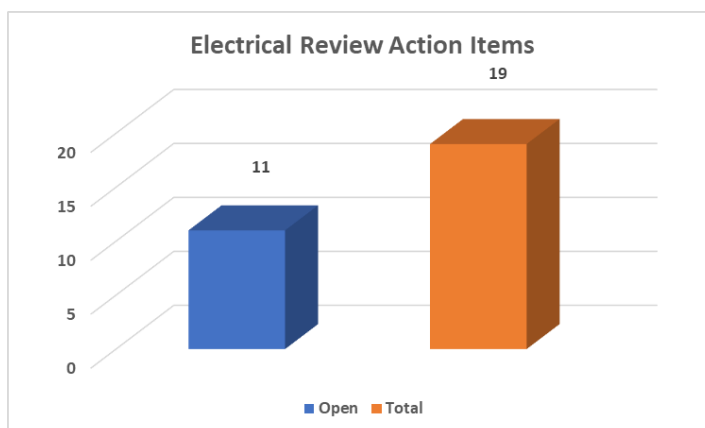
Upcoming Activities/Trainings

- 82nd CST Exercise with ERT (Sept)
- SURF to CERN Walking Initiative (Aug 7 – Sept 7)
- Annual Safety and Support Perception Survey (Sept)
- Master Rigging Training (Sept)

Environmental Support

- The annual Biological monitoring and sampling were performed by SURF's discharge Permit. The biological community (trout and insects) in Whitewood Creek shows zero impact from SURF's discharge.
- Bi-annual Spill Prevention, Control, and Countermeasure (SPCC) training was provided to SURF's fuel delivery service provider.
- LBNF/DUNE support:
 - 94 Safety Data Sheets for new products chemicals coming on site were reviewed, approved and entered into HAZMIN® database.
 - LBNF reclamation standards, historical preservation action items, storm water pollution prevention permit activities, and waste management activities were reviewed.
- The monthly water Discharge Monitoring Report(s) was prepared and submitted to state and Environmental Protection Agency (EPA). There were zero violations.
- An environmental audit was performed by the State of South Dakota on the SURF's National Pollution Discharge Permit compliance. There were zero issues.
- Solid and Hazardous waste documents were provided to the State of South Dakota in anticipation of an audit. The information submitted was deemed satisfactory and in order.
- A spill of transformer oil (due to high winds knocking over a pole supporting transformer cans) was managed and remediated.

Third Party Review Recommendations Status



**No ESHAC Review conducted in 2020*

Facility Operations Status

Yates Shaft

Work Accomplishments

- A total of 170 loads were handled through the shaft from June 1 through August 31.
- Top Down Maintenance corrected 198 conditions for the same time period. Top Down Maintenance activities took place mostly in the cage/work deck compartments due to MG-Set work. Guide replacement was the main focus in the cage compartment in the 1700L vicinity.
- Ongoing COVID-19 restrictions and MG-Set work continue to delay previously planned TDM activities in the cage compartments from the 4100L to the 4850L.
- Air door and water wall inspections also took place at every station.
- Regular shaft inspections occurred.

Upcoming Activities

- Continue guide replacement and prepare for Top Down Maintenance campaign in NE compartment.
- Install guides in the South cage compartment.

Underground Hazard Mitigation

Work Accomplishments

- Crews demobilized from the 4850L ahead of LBNF blasting activities.
- Work is progressing to develop new space for SIGMA-V on the 4100L.
- A contract has been secured for an outside contractor to excavate space for a drilling contractor to core holes for the next round of experiments.
- Water wall construction has been completed on the 2750L and 2900L in this quarter for the water wall inflow improvement project.

Upcoming Activities

- Begin mobilization for the station water wall replacement project.
- Continue advancing the SIGMA-V project on the 4100L.

Davis and Ross Campus

Work Accomplishments

- Quarterly air handling equipment and fire alarm preventive maintenance activities continued with vendors.
- Oxygen monitors in the Davis Campus have been calibrated and some replaced to ensure any low oxygen events are detected and alarm notifications are sounded.
- Planned replacement of chillers were completed. The upgrade to the existing chillers will allow the facility to meet the air temperatures and humidity needs of our customers.
- The relocation of Black Hills Underground Campus (BHUC) to the MJD area in the Davis Campus progressed.

Upcoming Activities

- Complete the relocation of BHUC to the MJD area.
- Support upcoming CASPAR activities.
- Perform maintenance activities—ongoing.
- Complete the demobilization of SIGMA-V from the 4850L and mobilize the equipment to the 4100L.

Surface Facilities

Work Accomplishments

- The SDSTA completed all seven (7) day, thirty (30) day, and annual (360) day preventative maintenance activities. Boart drill and jackleg repairs continue.
- In support of Sanford Lab recycling efforts, 17 gaylords of material were accumulated and shipped off site. An additional 19 gaylords were filled with recycle material.
- Maintenance Support Facility (MSF) construction continues.

- The Yates Complex entry road and Administration parking lot asphalt repairs, sealing and striping were completed in June.
- Storm water discharge areas throughout the site were inspected and slight repairs made.

Upcoming Activities

- Perform preventive maintenance activities—ongoing.
- Replace three air handling units at the Administration Building.
- Prepare for fall and winter activities.

Dewatering

Work Accomplishments

- Preventative maintenance was performed on pumps and pumping apparatus.
- Installation of the airlines to three new refuge chambers on the 1250L, 2450L, and 5000L was completed.

Upcoming Activities

- Continue monitoring the pressure reducing manifold on the 4850L.
- Continue scheduled preventative maintenance activities.
- Continue to work with UMC to install a two-inch air-line to the 4850L Refuge Chamber.
- Plan and begin preparations for a pump change out in the 3650L pump room.
- Assist FRA/KAJV with relocation and temporary installation of water lines.
- Continue planning and preparations for the Yates sump pump vertical discharge line.
- Complete installation of a restroom facility near the Big X location on the 4850L.

Waste Water Treatment Plant (WWTP)

Work Accomplishments

- At the end of August, the water level in the underground pool was at 5,874 feet—net drop in water level for the quarter was 45 feet. Underground water infiltration continues to maintain at approximately 325 GPM. A large portion of the infiltration was captured on the 2000L and pumped to the surface there by reducing the amount of water that normally would report to the deep underground pool.
- Modifications to the control system to allow specific functions to be operated from off-site advanced as planned—there were five off hour call-outs for the quarter. The WWTP has not discharged any water to the sanitary sewer for over four years. The team continues to balance water sources to manage temperatures.
- In cooperation with Barrick, for ongoing summer operations, the WWTP passed the third quarter Whole Effluent Toxicity (WET) test.
- The WWTP Operators relocated the electro-winning process to another location in the WWTP to allow for easier access for the MJD experimenters. An in-depth inspection by the SD-DENR was conducted and no violations or recommendations were made. The State office recognized the WWTP as an outstanding facility.

Upcoming Activities

- Continue to monitor and sample the underground wastewater treatment plant located on the 4850L.
- Continue neutralizing acid from the MJD experiment.
- Continue SURF grounds maintenance.
- Enhanced turbidity in the underground water has increased the number of backwashes in the Yardney filters to twice daily.

Transportation and Mobile Equipment

Work Accomplishments

- The team performed vehicle preventative maintenance actions and repairs to fleet vehicles.
- Underground locomotives, support equipment including air compressors, loaders and rail cars were maintained.
- Snow removal equipment has been serviced and inspected and ready for fall and winter.

Upcoming Activities

- Continue repairs on the walk behind skid steers and two-yards loader located on the 4850L.
- Disassemble the Fletcher Bolter, relocate to another level and reassemble.

Electrical and Cyber Infrastructure

Work Accomplishments

- The team continues to review and modify the underground communications infrastructure to ensure each level has voice over IP (VoIP) and FEMCO (i.e. twisted pair) phones at each underground facility level. Various preventative maintenance activities were performed.
- The team continued to work with KAJV to establish construction power on the 4850L near the Ross Station.
- Upgrades to the Yates 4100L Station continued.
- Assisted with the Oro Hondo variable frequency drive replacement.
- Installation of power to three new refuge chambers on the 1250L, 2450, and 5000-foot levels was completed.

Upcoming Activities

- Continue camera replacements to the pump rooms and the WWTP.
- Replace and add additional fiber optic cable in the Ross and Yates Shafts.
- Plan and develop temporary power for the Ross Headframe area to support air compressor upgrades.

Engineering Support

Work Accomplishments

- New electrical service to the Ross Dry Building was established after a power pole that supports the transformers and overhead line to the Ross Dry broke off during high winds, destroying the transformers and causing a power outage to the Ross Complex.
- As part of ongoing Yates conveyance inspection efforts, a contract for the off-site sandblasting and painting of the North Work Deck & South Skip Bonnet was awarded. Both units were shipped off site in August. A separate Request For Proposal (RFP) for the on-site sandblasting and painting of the South Cage and North Skip Bonnet was completed as well. That work is being scheduled.
- A Request for Qualifications was initiated to procure consulting services to study and provide Yates Shaft Rehabilitation options. Two Architect-Engineering firms will provide on-site presentations of qualification in September.
- The Scope of Work for the Ross Cage and counterweight rope change and socket change work was finalized and posted. This will also include the installation of a new cage in the Ross Shaft.
- DOE approved procurement of a new Ross Headframe compressor. Designs are being finalized for the new compressed air piping and compressor building concrete pad. All compressed air used underground is currently supplied by a Homestake legacy compressor with approximately 40,000 hours of service.
- Installation of new pump room refuge chambers (1250, 2450, 5000L) and utilities connections were completed. Vendor supported commissioning will take place the week of September 21.
- Two of the nine water walls for the Water Inflow Recapitalization (Phase 1) were completed.
- A contract was developed and awarded for supporting SIGMA-V blasting requirements on the 4100L. Blasting is planned for late September.
- A&E design work for the Upgrade to Headframe Security project was completed. The construction RFP was released with proposals due 4 Sept.
- The Ross Complex Waterline project contract was awarded. RCS Construction of Rapid City was the successful contractor. Mobilization and work started August 24.
- The Maintenance Support Facility contractor has completed much of the underground utility work and poured the concrete floor slab and thermomass wall. The metal building has arrived and will be erected in September
- Yates Cage Hoist Motor Generator Set Refurbishment kicked off with disassembly and transport to the off-site shop for inspections, testing and to begin refurbishment.
- The SURF-Wide Arc Flash Study consultant draft report was submitted for review and comment along with electrical one-line diagrams.
- Design development was completed and an RFP released for Davis Campus Chiller #3 Replacement.

Science Support Status

- SURF was well represented at the (virtual) XXIX International Conference on Neutrino Physics and Astrophysics (Neutrino 2020), held June 22 - July 2. In addition to a SURF poster presented by SDSTA Research Scientist Dr. Markus Horn, Science Director Dr. Jaret Heise was invited to give a plenary presentation on worldwide underground facilities (including SURF): <https://indico.fnal.gov/event/43209/timetable/#20200622.detailed>.
- A Letter of Interest describing SURF's current status and proposed future facilities was submitted to the U.S. High Energy Physics strategic planning process (Snowmass 2021): <https://www.snowmass21.org/docs/files/?dir=summaries/UF/>.
- Facility highlights: Experiment groups reported no issues following the first LBNF blasts on various levels: 3650L (starting June 23) and 4850L (starting August 27). With the removal of some rail sections on the 4850L due to LBNF construction, transportation to Ross Campus laboratories is being accomplished using a rubber-tire vehicle. The 4850L West Drift is now restricted to Lawrence Berkeley National Lab (LBNL) construction activities. Tests were conducted to understand the impact of ventilation restrictions due to LBNF blast doors on the operation of Davis Campus chillers.
- Interruptions: In the past quarter, there were a few issues with the Davis Campus dehumidifier that were addressed by the service contractor and SURF personnel. Several power blips interrupted Davis Campus HVAC equipment and required some emergency LZ access and various issues affected Davis Campus dehumidifier performance. In addition, there were alarms due to a failed carbon monoxide (CO) sensor and a sensor electrical issue.

LUX-ZEPLIN—LZ

- Leak checking and detector outgassing under vacuum continues inside the Davis Cavern water tank.
- Circulation tests using ~100 kg of Xe were successfully completed, and all Xen was recovered into a dedicated storage vessel. The temporary cryostat used in the test has been removed, and work is well advanced on establishing the final plumbing configuration. One of the Xe recovery compressors was installed at the Davis Campus and commissioning is underway, and the gas purge panel has been installed underground.
- Commissioning progressed on several fronts, including detector connections, outer detector assembly (bottom acrylic tanks and one top acrylic tank were successfully transported underground), and electronics installation.
- An updated oxygen deficiency hazard (ODH) analysis based on the final design indicates all areas are class zero.
- Another hoisting-related stop work was instituted after a pulley axle came loose while preparing to lift a metal frame. There were no injuries or equipment damage, and additional safety walk-through inspections are being performed on a regular basis.
- As institutional travel restrictions lift, the number of LZ personnel at SURF slowly increased over the past quarter, allowing double shifts to resume in late June.

MAJORANA DEMONSTRATOR—MJD

- The cable and connector hardware upgrade was completed for Module #2. Testing in the glovebox confirmed that 27 out of 27 germanium detectors were operational (previous Module #2 performance was 62%).
- With institutional travel approvals for critical personnel, Module #2 was re-installed in the main shield by the end of August. Some shield improvements were also made, including better fitting lead bricks that were custom machined offsite. Both modules will collect data for an additional ~6 months to reach an exposure of 65 kg-years.
- After some manufacturing delays, a new batch of four LEGEND-200 detectors arrived at SURF mid-July and were mounted in Module #2 prior to re-installation into the main shield.
- One of the machine tools no longer being used (wire EDM) was moved out of the Davis Campus Machine Shop. A vendor technician was required to disassemble the tool and another contractor provided air skates to safely move the ~7600-lb tool out of the laboratory space so that SURF Operations crews could safely transport it to the surface. Another tool (lathe) will be relocated within the Machine Shop in September.
- Preparations are advancing for the installation of BHUC low-background detectors in a portion of the Machine Shop. A shared-space Memorandum of Understanding (MOU) is in place, and per MJD's request locks were installed on doors from the Machine Shop to the Detector and Electroforming Rooms, and the installation of additional partitions is underway.
- SDSTA personnel worked with MJD crews to relocate electrowinning equipment at the surface WWTP.

Low-Background Counting

Black Hills State University Underground Campus—BHUC:

- The decommissioning process at the Ross Campus facility is essentially complete, with some final decommissioning documentation expected shortly to support a final walk-through inspection.
- All low-background counters (LBCs) are offline and removed from the space; one system with the lowest sensitivity was relocated to BHSU for use as a surface pre-screener. To minimize the exposure of shielding materials to elevated surface cosmic radiation levels, underground storage was provided for some copper plates and ancient lead bricks; however, the majority of the ~2300 lead bricks were crated and stored on the surface.
- There was good progress on documentation regarding the shared Davis Campus space. An updated MOU with BHSU for the BHUC project was signed, as well as a FY2021 General Services Agreement (covering both Ross and Davis Campuses). The associated Experiment Planning Statement update for the Davis Campus is currently in review by SURF; some additional power and network provisions will be required.
- The Lawrence Livermore National Lab (LLNL) dual-crystal system arrived at SURF in August, including the commercial lead shield (not bricks like other systems), the electronics as well as the germanium detectors (cooled using an electric cryocooler instead of liquid nitrogen). The main system components are underground, and the lead shield was set inside the Davis Campus Machine Shop. The LLNL detector will be the first LBC system brought online at the Davis Campus, and the goal is to have it operational by late September.
- The first two LBC systems sent offsite for cooling system upgrades returned to SURF in late August; the remaining systems are expected to ship in October and November. As noted previously, the new cooling system for the Ge-IV LBC arrived at SURF last quarter, and installation may begin as early as late September.

SIGMA-V

- The work to protect the two drill holes at the 4850L West Drift site was completed (cutting casings and installing hole plugs and protective bash plates), and the final decommissioning documentation is being reviewed by SURF. Experiment equipment continues to be shipped offsite, in some cases to be modified for use on the 4100L.
- Although previously approved, an updated version of the 4100L Experiment Planning Statement will be circulated to formalize the latest iterations on the planned layout. Drilling bids were received by LBNL, and subject to institutional travel approvals, work is expected to begin in October. Some modest excavation work for the 4100L site will be coordinated by SURF.

Compact Accelerator System for Performing Astrophysical Research—CASPAR

- Oxygen-18 target measurements were completed including scans at energies in the range 470-767 keV.
- A two-week campaign was completed using the alpha beam on a lithium-7 target. Data were obtained at various energies including 401-953 keV, and data analysis is underway (by SDSTA Experiment Support Scientist Mark Hanhardt).
- The accelerator is operating well, achieving an alpha-beam intensity up to 140 μ A on target.
- Radiation monitors were calibrated at the manufacturer and reinstalled in the CASPAR laboratory.
- Troubleshooting the He-3 neutron detector identified an issue with an electronics crate, which has since been sent to the manufacturer for repair.
- The schedule for subsequent data campaigns continues to depend largely on institutional travel approvals. The goal is to complete data taking by the end of 2020, followed by decommissioning/mothballing.

Other Current Research Activities

Physics

- Discussions were held with researchers regarding a low-mass dark matter project that received DOE funding.

Geology

- GEOXTM: A number of trips were made in the past quarter with SDSTA personnel in order to maintain existing air-flow monitors, collect laser scans of ventilation passageways and to collect additional data readings to improve the SURF ventilation model.

Biology / Chemistry

- DeMMO: A support letter was provided to the Principal Investigator for additional biology sampling at SURF.

Engineering

- Thermal Breakout: A total of seven heating tests have been conducted at various depths in an existing rhyolite drill hole in the 4850L West Drift. Televue imaging confirmed the tests in July were successful (another test in August was aborted due to equipment issues). The group has submitted documentation to support moving to another existing hole on the 4850L (amphibolite rock formation).

Annual Work Plan Variances

- SURF Services was under budget by \$498k in August, taking the year-to-date underrun to \$1.97M.
- Labor contributed \$121k, about 9% under plan.
- Nonlabor was significantly under plan, adding \$376k to the total variance.
- This was primarily due to two large items planned in August that were not realized.
 - The Yates Concept study was originally planned to start in August with a budget of 100k. This effort has been moved to the FY2021 Infrastructure Improvement Plan program.
 - A pump rebuild on the approved 'Critical Upgrade' list was planned at \$240k for August. The rebuild was completed, but was not been approved to invoice.

These two items make up most of the underrun for the month.

Financial Status

Included in the Financial Report are the following:

- Cooperative Agreement (CA) SURF Services FY2020 (federal fiscal year) SPA Curve as of August 2020 (included as Appendix B at the end of the report)
- Financial Summary (included as Appendix C at the end of the report)
 - 1) Balance Sheet as of August 2020
 - 2) Comprehensive Statement of Income August 2020
 - 3) Comparative Balance Sheet – August 2020 vs. August 2019
 - 4) Comparative Statement of Income – August 2020 vs. August 2019
 - 5) Available Resources as of August 2020
 - 6) Operating Budget Summary
 - 7) CAPEX August Budget Summary
 - 8) August 2020 and YTD CAPEX Budget – actual vs. budget

CA SURF Services FY2020 Scheduled Performed Actual (SPA) Curve

- This graph represents an analysis of the CA-SURF Services Award No. DE-SC0020216 scheduled funding compared to actual. The report shows funding through September 2020 along with information related to Funded-to-Date dollars, Scheduled dollars, Performed dollars and Actual dollars by month. Actual dollars represent actual invoices for the months sent to the DOE Office of Science for reimbursement. For August, the invoices totaled \$1,467,647 which is lower than the anticipated reimbursements of \$1,965,523 by \$497,876. Cumulative expenses are at \$17,929,974 which is lower than the budgeted \$19,906,489 by \$1,976,515. Underruns are due to not hiring as planned and not purchasing supplies and fewer contractual items during the COVID-19 shutdown in March/April. Likewise, some large purchases were postponed due to COVID-19 shutdowns.

Balance Sheet Items

- Cash in Local Checking—Total on hand at August 31, 2020 was \$3,184,139; up from last month by \$238,799. Funds on hand were necessary to pay employee medical/life/vision insurance due September 1. The balance also contains funds received from federal contracts late in the month on open accounts receivable.
- Cash with State Treasurer—Total balance of \$15,228,480. This balance has decreased from last month by \$1,106,491. This amount includes \$837,476 drawn down in August and the adjustment for unrealized interest from FY2020 - \$269,015.
- Billed Accounts Receivable (A/R)—Billed A/R represents any open invoices based on contracts from sources such as LBNL, Fermilab, other smaller contracts from other universities and Barrick-Homestake Mining Company. Total is at \$2,015,174; up from last month by \$109,282. Included in the balance are open invoices to LBNL for \$330,046; representing invoices for the LUX-ZEPLIN (LZ) experiment support contract and the SIGMA-V experiment support. Additional open invoices include \$510,758 from Fermilab primarily from the SURF Services subcontract, the Ross Shaft Rehabilitation work and a contract for Ross Shaft Logistics Support.

Furthermore, the open balance from the CA is at \$1,110,149. Additionally, there are open invoices for \$14,750 from small university subcontracts, and \$49,471 from Barrick/Homestake and Kiewit.

- **Unbilled A/R**—Balance at \$560,028. Unbilled A/R represents items that have not been billed on various contracts. August's balance has increased by \$340,354. The payroll from pay end date August 28, (paid on September 11, 2020) was not invoiced in August on various contracts. The amounts will be invoiced in September. Additionally, there are unbilled amounts on the CA for various Infrastructure Improvement Projects that have not been fully approved. The projects have been technically approved, but the budgetary amounts are still being considered.
- **Other A/R**—Current balance of \$371,305. This balance represents any Interest Receivable and Miscellaneous Accounts Receivable. The balance increased by \$281,769. This balance includes the adjusting entry on the unrealized appreciation on undistributed earnings on the funds held with the State as of June 30, 2020. Activity for this month also includes recording the interest accrual for August.
- **Inventory/Supplies**—Balance at \$2,422,521, for fixed assets being stored but not in service. This balance is unchanged for the month. Yet, since the last report, it has increased by \$135,000 for various pumps. See explanation in Fixed Assets below.
- **Inventory Warehouse/Personal Protective Equipment (PPE)**—Current balance of \$28,256. This balance represents the warehouse inventory that was purchased by SDSTA prior to federal funding. The balance is unchanged for the month.
- **Other Current Assets**—This listing on the balance sheet represents the balances of both prepaid insurance—\$595,964 and prepaid other—\$109,834. Total balance of \$705,798 is lower from last month by \$45,509. This decrease includes our monthly insurance expense and the expensing of various prepaid items in August along with increases for renewals for insurance. Our current expense rate for all insurance including worker's compensation and xenon insurance is approximately \$125,000 per month.
- **Fixed Assets**—Current balance of \$80,321,906. Fixed assets activity since my last report includes the category labeled (DOE Property Transfer). This includes a variety of fixed assets that have been abandoned by the Department of Energy (DOE) and transferred to the SDSTA. \$290,484 was transferred along with approximately \$135,000 of pumps being stored for later use. Various other equipment was transferred, but are valued, after depreciation, lower than our \$5,000 threshold to capitalize. The net decrease of \$191,786 since last month includes depreciation for the month of August. Depreciation for the DOE Property Transfer items is separated as this amount will not be included in our indirect cost recovery on contracts.
- **Work in Progress**—This balance of \$1,200,889 represents the current fiscal year progress being made using Sanford/SDSTA funds, borrowed Foundation funds and funds received from the SD Governor's Office of Economic Development (GOED) to support the budgeted projects on the CAPEX budget less any items that are being capitalized within the Fixed Asset designation or Xenon Purchased. Current balance has increased by \$701,816 from the previous month primarily due to the construction on the Maintenance Support Facility (MSF).
- **Pension Deferred Outflows**—This designation on our Balance Sheet reflects the requirements related to the Governmental Accounting Standards Board (GASB) No. 68 and No. 71 in reference to pensions. SDSTA is required to report the net pension asset or liability on the face of our financials along with related deferred inflows and outflows. The State's retirement system is now fully funded. The Net Pension Asset is a restricted asset. Thus, the equity created is also restricted. The balance Pension Deferred Outflows shown as a noncurrent asset is \$2,995,815 created by FY2020 final entries. The balance has decreased from the previous year by \$948,093.
- **Xenon Purchased**—Balance of \$8,934,350 represents the value of xenon purchased for future use by experiments. The xenon inventory is considered a non-current asset and includes all the purchases through fiscal year 2020. The balance increased in June 2020 for the \$770,000 of xenon purchased in FY2020. SDSTA has received all the xenon shipments that were requested.
- **Total Assets**—Total of \$117,968,661. This balance has increased from last month by \$328,233 which represents the net activity as listed above excluding the change in Pension Deferred Outflows and Xenon Purchased.
- **Accounts Payable**—Our Total Accounts Payable balance of \$1,689,073 at the end of the month compared to last month has increased by \$500,114. This is primarily due to increased activity on the construction of the MSF.
- **Accrued Payroll Liabilities**—Current balance of \$1,659,380 has decreased slightly by \$86,583 from last month. This represents the net change between earned vacation and vacation taken and other changes in employee benefit-related liabilities. Also included is the accrued payroll from August 28 that was paid in September.
- **Long Term Xenon Notes Payable**—This designation represents \$2M of funding received from the South Dakota Community Foundation (SDCF), \$2M received from the University of South Dakota Foundation (USDF), and

\$2M received from the South Dakota State University Foundation (SDSUF). The \$6,000,000 balance is designated for purchasing xenon for experiment use at Sanford Lab. The balance is unchanged from last month.

- Pension Deferred Inflows—This classification reflects the requirements of GASB No. 68 and No. 71, as discussed earlier. The balance of \$1,266,586 represents our portion of the difference between projected and actual earnings on pension plan investments with the South Dakota Retirement System.
- Total Liabilities—Total Liabilities increased by \$413,532 (from \$10,201,507 to \$10,615,039), which reflects the net activity listed above.
- Total Equity—Decrease to \$107,353,622 from the previous month \$107,438,919.
- Total Liabilities & Equity—Increase to \$117,968,661 from the previous month of \$117,640,427.

Statement of Income Items

- On the SDSTA's Statement of Income, the DOE Subcontracts are consolidated into one line on the report. Included in this amount are various subcontracts from LBNL, Fermi National Accelerator Laboratory (FNAL), the CA with the DOE Office of Science, as well as a small contract for the MAJORANA project with Oak Ridge National Laboratory. Total revenue through August 2020 is \$4,515,543 (increase from July of \$2,482,209).
- National Science Foundation (NSF)/National Aeronautics & Space Administration (NASA) Subcontracts—Total revenue through August 2020 from this funding is \$866 (increase of \$606 from July). The balance represents revenue from the South Dakota School of Mines and Technology (SDSMT) for CASPAR.
- Interest income recorded for the current fiscal year on State Funds is at \$25,754. This represents interest accruing at 1% on the cash held by the state on behalf of the SDSTA.
- Direct Costs are then listed on the Statement of Income. The classifications for Unallowable Costs and Indirect Costs are listed as well on this report to follow the federal contracting format. Direct Costs/Unallowable Costs are at \$2,464,614 for the current fiscal year. Indirect Costs including fringe benefits are at \$2,377,872. Costs are slightly higher than revenue by \$300,083.
- Other Income is at \$81,277 which represents miscellaneous income received from Kiewit/Alberici and small amounts from Barrick.
- Net income through August after Reclass Increase in Net Assets is at \$156,469.

Comparative Balance Sheet

- Total in Local Checking is higher by \$1,011,158 due to receiving more funds from contracts in Accounts Receivable when comparing the two-time frames. SDSTA is receiving payments on the CA on a much quicker basis than from our other contracts.
- Total Cash with State Treasurer is lower by \$1,958,054 from this time last year as funds have been used for the construction of the MSF along with using Experiment funds for xenon related expenses.
- Billed A/R is lower by \$1,380,708 from this time last year, primarily because under the CA payment to SDSTA is within two to ten days of receipt of invoice. This is very beneficial for cash flow purposes.
- Pension Deferred Outflows is lower by \$948,094 due to fiscal year 2020 entries.
- Xenon Purchased has increased by \$770,000 for the final purchases of xenon made during fiscal year 2020.
- In summary, Total Assets have decreased by \$1,484,643.
- Total Current Liabilities are slightly higher by \$573,252 when comparing the two-time frames. Accounts Payable is slightly higher as well as Accrued Payroll Liabilities. Pension Deferred Inflows have also increased for fiscal year 2020 entries.
- Total Restricted Funds are lower due to the use of these funds for related expenses. Restricted: Foundation has been added to our Balance Sheet for funds transferred from the SURF Foundation.
- Unrestricted Funds are higher when comparing the two-time frames. Additionally, Investment in General Fixed Assets is slightly higher than this same time last year.
- Total Equity has decreased by \$2,541,059 from this time last year.
- In summary, Total Liabilities & Equity have decreased by \$1,484,643.

Comparative Profit/Loss

- Total Revenue for year-to-date August 2020 compared to year-to-date August 2019 has decreased by \$2,477,188. This is due to last year's revenue including \$2,500,000 from the State GOED but zero for this year. Direct Costs and Indirect Costs for year-to-date August 2020 compared to this time last year show a combined slight increase of \$128,421 (a 2.7% increase). This is primarily due to the increase in personnel in the Indirect category. Net

Income/Loss for the comparative time periods shows a decrease in income of \$2,487,878, primarily due to not receiving GOED funds this year.

Available Resources

- This report reflects our available cash/accounts receivable after noting the restricted cash balances in the Indemnification, Mine Closure, and Special Session Lab accounts, and funds held for Experiments—xenon purchase and interest for investors. This report reflects our available cash and (short term) accounts receivable as compared to our current liabilities including accrued payroll liabilities. \$5,578,389 is available after noting our current obligations. It is also important to note that our accrued payroll liabilities include accrued vacation and sick pay. Therefore, the report reflects our available resources compared to current obligations.

Operating Budget Analysis

- This report is separated into three sections: SDSTA-funded activities, Federal, State, and Commercial funded activities and Indirect expenses that benefit various activities. Total operating expenses are under budget for August 2020 by \$486,454. This is primarily due to less spending on the Cooperative Agreement than planned.
- Year-to-date figures are under budget by \$1,204,885.

Capital Expenditure Budget Analysis

- Our current capital expenditure projects have been condensed and are listed as CAP2014-01, CAP2016-03, and CAP2019-01. Total project dollars for FY2021 are budgeted at \$5,068,074.
- Funding for the LZ Xenon Gas Purchase was secured from the GOED granting \$6,000,000. Loan documents have been executed for \$2,000,000 each from the South Dakota Community Foundation, the South Dakota State University Foundation and the University of South Dakota Foundation for xenon purchases. All xenon has been received. Remaining expenses relate to interest expense for the three foundations and for insurance on the xenon.
- The MSF is progressing with Dean Kurtz Construction. A change order to the contract with Dean Kurtz has been negotiated enabled by a Construction Manager at Risk (CMAR) contract that was signed. Dean Kurtz Guaranteed Maximum Price (GMP) was submitted at \$5,136,424 to build the facility.
- In August, \$701,816 was spent on our CAPEX projects with a budget for the month of \$711,979. Year-to-date \$1,200,889 has been spent on these projects.

Human Resources

There are currently 168 full time employees and 17 temporary staff, primarily Emergency Response Team members. New hires for August include Infrastructure Technicians Tim Berry and Jake Mack as well as a Technical Writer Caroline Amelse. Current postings being recruited include: Infrastructure Technicians, an Emergency Response Team (ERT) Supervisor/Trainer and an ERT member.

**Ross Shaft Rehabilitation - Subcontract No. 630223
and
Ross Shaft Logistics Support – Subcontract No. 654406**

Ross Shaft Rehabilitation

Work Accomplishments

- Site visits by KAJV-FRA were conducted for design and project purposes.
- Crews supported KAJV to move persons and materials to their work areas (3650L, 4550L, 48500L, 5000L Skip Pocket, and 5000L).

Upcoming Activities

- Continue to support KAJV.

Professional Staff Services - Subcontract No. 607915

Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Facility (DUNE)

- In regard to the Ross Hoists Drives/Brakes/Clutches Reliability project, the installation contractor Laron and their electrical sub Groves mobilized onsite to begin electrical construction at the hoistroom.
- Completed Blast door/chiller ventilation testing and analysis by closing the East/West drift LBNF blast doors to determine impacts on the Davis Campus chillers located in the East Drift. It was determined with both blast doors closed, the chillers were able to run for ~1 hour without seeing significant impacts to their operation.
- LBNF Final Design updates are being supported with Arup and FRA. Updates include removal of outfitting south cavern, moving cryogen compressors underground and eliminating the surface cryogen building.

LZ - Subcontract No. 7255146
LZ Operations - Subcontract No. 7355146

Other Experiment Support

LUX-ZEPLIN (LZ)

- Circulation testing was completed, and work has begun on the permanent xenon (Xe) connections between the detector and the rest of the circulation system.
- The first of two recovery compressors arrived on July 29 and was brought into the Davis Cavern. Xe tower was moved into final location and connected to the detector. The bottom acrylic tanks for the outer detector were move underground in early August.
- In preparation of the transition from installation/assembly to operations, a focused effort was made on procuring critical spare parts for the cryogenics system. Additional critical spare parts are being order by additional members of the LZ collaboration.

Indirect Funded Activities Status

Contracts Status

Department of Energy (DOE) subcontracts to SDSTA

US Department of Energy, Office of Science

- Continue to work through the approval process of submitted documents to support SDSTA's requests for critical maintenance and infrastructure improvement projects under Contract No. DE-SC0020216 for FY2020.

Fermi Research Alliance

- SDSTA submitted a proposal for the Ross Shaft Final Construction Tasks.
- Far Site Conventional Facilities Bridge Power RFP; DOE is working with Black Hills Energy to get their own contract in place.
- The period of performance will be extended for the Ross Shaft Logistics Contract.

Lawrence Berkeley National Laboratory

- SDSTA submitted a proposal for 4100L blasting.
- Provide close out documents for Subcontract No. 7255146 (LZ projects).
- Received Modification No. 6 for Subcontract No. 7371823 to increase funding.
- Received Modification No. 1 for Subcontract No. 7525117 to increase funding for LZ Ops Phase 1.

Summary of Contracts Awarded by SDSTA in August:

Contract No.	Contractor/Vendor	Type	Project
2015-21	Albertson Engineering	CO#16	Trolley Beams
2015-21	Albertson Engineering	CO#17	Thickness on Sandblasting Yates Conveyance
2005-21	Albertson Engineering	CO#18	Contract Extension
2020-14	Ingersol Rand		Ross Air Compressors
2020-15	Galyn Rippentrop		Facility Advisory Committee Chair
2019-07	Dean Kurtz	CO#17	Concrete Work
2020-06	TSP Engineering	CO#1	Staffing Change
2018-27	Clifton Larson	CO#1	Extend Period of Performance
2019-29	CVD	CO#15	Movement of EDM Tool
2019-29	CVD	CO#16	Yates Work Deck Installation
2020-17	Harrison Western		SIGMA-V Blasting
2018-28	Monument Health	CO#8	Name Change
2014-19	Jim's Private Utility	CO#6	Extend Period of Performance
2012-04	Neo Systems	CO#12	Extend Period of Performance
2014-27	KT Connections	CO#7	Extend Period of Performance
2015-25	Overhead Door	CO#8	Extend Period of Performance
2015-17	Butler CAT	CO#7	Extend Period of Performance

Purchase Orders (POs): 166 POs were issued in August totaling **\$440,759.60**

Warehouse Inventory: Warehouse inventory as of August 31, 2020, totaled **\$293,102.50**

Education and Outreach (E&O) Status

With the advent of the Coronavirus and measures to minimize its impact, onsite activities of both the E&O Department and the Cultural & Diversity Office have been largely curtailed. The activities listed below have all been accomplished using virtual delivery methods.

K-12 Education and Outreach

Curriculum units

- There was no use of curriculum units by students in the June-August period.
- Current status of new and revised units is:
 - Biofilms 101 – This new middle school unit was featured in professional development workshops facilitated for the Experimental Program to Stimulate Competitive Research (EPSCoR) this summer. Material kits are being assembled and the unit will be piloted this fall. The unit has also been converted to a digital-only option for teachers who are able to provide their own materials.
 - Move It! – This new K-2 unit was featured in the Sanford Lab E&O professional development workshop this summer. Kits are being assembled and the unit will be piloted this fall.
 - Sound and Light – This major revision of *Seismic Science* was also featured in the Sanford Lab E&O professional development workshop this summer and will be piloted in the fall.

Classroom presentations and field trips

- There were no face-to-face interactions with K-12 students in the June-August period. See Table 1 for Student/Educator Impact for this period.
- Members of the E&O team provided daily live presentations for Virtual Neutrino Day. The presentations were targeted towards K-12 students at various levels, but there was no way to determine what percentage of the audience were actually students. There were 184 views of the six presentations on Vimeo by July 15 and more on YouTube and Facebook. Presentations were:
 - How Small is a Neutrino? (P. Norris) – middle school
 - There's Gold in them thar Hills! (P. Norris) – high school
 - Shockingly Static Science (B. Bundy) – early elementary
 - Stella Brite and the Dark Matter Mystery (J. Dahl) – upper elementary
 - The Math Behind the Hoists (N. Reiner) – middle/high school
 - Investigate the Unseen (D. Wolf) – upper elementary / middle school
- The E&O team also put together 'Anytime Activities' for students accompanied by a virtual scavenger hunt for each grade band. E&O's Becky Bundy led this effort. Many outside organizations/individuals contributed activities.
- There will be no K-12 field trips on-site at SURF and no visits to K-12 classrooms this fall, so members of the E&O team and E&O interns have been virtualizing several of the field trip activities and classroom presentations. These will be combined with the virtual tours prepared by the Communications Department for Virtual Neutrino Day and offered as remote alternatives.

Professional Development (PD)

- In June and part of July, the work of the E&O team was focused on PD for K-12 teachers in South Dakota, all presented virtually:
 - Nicol Reiner and Deb Wolf led a two-day final workshop for Cohort 3 of the SDMath/SDSci program.
 - A 'train the trainer' session for EPSCoR-funded PD was held for master teachers and EPSCoR faculty and education staff.
 - Teacher leaders trained by the E&O team facilitated eight 3-day workshops for South Dakota EPSCoR; each workshop featured the new Biofilms unit.
 - The annual SURF/BHSU week-long PD session took place June 22-26.
 - Nicol and Deb facilitated a one-day workshop for Hill City School district in August.
- A high school teacher, Steve Gabriel from Spearfish High, worked with the Underground Access Group at SURF as part of a Research Experience for Teachers program funded by SD Space Grant Consortium (SDSGC).

Undergraduate

- Six undergraduates accepted the opportunity for SURF internships this summer with the condition that they be primarily or totally remote virtual experiences. These interns are listed in Table 2. In addition, the E&O Department worked with two BHSU education majors funded through the EPSCoR grant. The two Chris Bauer engineering interns were able to spend part of their time working underground in July and August. The other interns worked remotely all summer, visiting on site for an underground tour and presentations August 12-13.

- In order to recruit broadly for the 2021 internship program, we are participating in a virtual career fair at SD Mines in September and plan to do the same with other campuses this fall.

**Table 1. Student/Educator Impact
June - August 2020**

Bucket of Work	# of Programs	# of Districts	# of Schools	K-12 Students	K-12 Educators	Undergrad Students
VND*	7	N/A	N/A	Unknown	Unknown	Unknown
Professional Development	14	77	?	0	292	5
Undergrad	1	N/A	N/A	0	1	8
TOTAL	22	77 (unique)	77+	0	293	13

* Virtual Neutrino Day—184 unique views on Vimeo, 84 views on YouTube, 2,375 views on Facebook (July 6-15).

**Table 2. Summer Intern Program
June - August 2020**

Program	Participant	School	SDSTA Department
SDSGC RET	Steve Gabriel	Spearfish High	Underground Access
SURF – Chris Bauer	Larissa Pawlowski	SDSMT	Underground Access
	Gabriel Peters	SDSU	Engineering
SURF – Dave Bozied	Adrienne Roller	BHSU	Science
	Austin Olson	Augustana	Science
	Cody Cline	BHSU	Communications
	Caitlyn Larson	Augustana	E&O
NSF SD EPSCoR	Taylor Lenz	BHSU	E&O
	Shantel Cryan	BHSU	E&O

Communications Status

- Virtual Neutrino Day took place July 6-11, 2020, drawing in more than 4,500 people from 20 countries.
- The webpage for the SURF Foundation has been updated and redesigned.
- The first season of the “The Drift” video series has been completed.
- A virtual Deep Talks series is being prepared that will begin with Dark Matter Day in October.
- SURF will partner with Boulby Laboratory in the UK for Dark Matter Day.
- Communications is working with ESH to develop two new safety videos.
- The Communications team continued to work on the Education and Outreach video.
- Three videos were filmed for use in employee training.
- Matt Kapust was promoted from Creative Services Developer to Creative Services Manager.
- In June, BHSU intern Nick Hubbard was hired as a full-time SDSTA multimedia specialist in June.
- DA successful and highly hands-on experience was developed for the Communications Intern.
- The Communications team is beginning work on a SURF documentary.

Community Outreach/Media/Site Visits/Presentations/Site Visits

- Several news outlets wrote articles about Neutrino Day.

Upcoming Community Outreach/Media/Site Visits/Presentations/Site Visits

- Deep Talks: Dark Matter Day. This event is an international program; SURF is coordinating with Fermilab.
- A virtual presentation will be given in October to the Lead Kiwanis Club.

- Communications Director Constance Walter met with Four Corners Media to discuss interviews with SURF scientists for a documentary about the Black Hills.

Video, Web, Graphics

- Communications continues to create new video and animations to illustrate a variety of topics and for a variety of platforms, including social media, PowerPoint presentations and the website.
- New features are being created and all experiment pages are being updated for the Sanford Lab website.
- Fresh content is being created weekly for all social media platforms.
- Albums in the Sanford Lab Photo Gallery may be viewed at: <http://pics.sanfordlab.org>.
- General web maintenance, digital signage content; media assistance to science collaborations and educational institutions are ongoing.

Photos of recent events/milestones are included as Appendix A.

News coverage

Note: The Rapid City Journal and Black Hills Pioneer continue to re-run Deep Thoughts stories weekly.

- [Sanford Lab to upgrade critical shaft](#), by Alex Portal, Black Hills Pioneer, August 21, 2020
- [Two Kinds Of Gravitational Lenses Both Reveal Dark Matter](#), by Ethan Siegel, Forbes, August 17, 2020
- [Berkeley Lab Founder Ernest Lawrence to Be Honored With Memorial Highway in South Dakota](#), by Glenn Roberts Jr., Berkeley Lab, August 10, 2020
- [Conveyor that stretches over US Hwy 85 near completion](#), by Siandhara Bonnet, Rapid City Journal, August 6, 2020
- [Neutrino Day With Constance Walter](#), by Joshua Haiar, South Dakota Public Broadcasting, July 6, 2020
- [‘Truss’le and bustle: LBNF/DUNE’s conveyor system makes its way across Lead](#), by Alex Portal, Black Hills Pioneer, July 22, 2020
- [U.S. 18 through Canton will honor Nobel winner](#), by Bob Mercer, Keloland Media Group, July 23, 2020
- [Neutrino Day to be made available online](#), by Siandhara Bonnet, Rapid City Journal June 26, 2020
- [Sanford Lab transitions to new operations level](#), by Constance Walter, Rapid City Journal, May 7, 2020

Information Technology Status

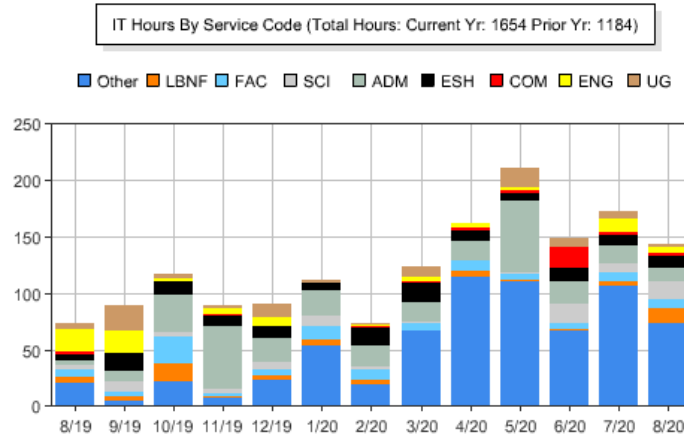
Projects

- IT worked with KAJV and Operations to provide addition WIFI at the 3650L.
- IT continues to participate in the MineTech meetings and evaluations.
- Successfully and without interruption in service, the IT team completed a large-scale upgrade to the SURF virtual and storage area network environment move to a new platform.
- Six new switches were implemented this summer to facilitate 10GigE connection upgrades. The remaining switches to support underground science is scheduled in late fall.
- IT is working with the Communications and ESH departments to develop and implement “blasting communications” utilizing and expanding the digital signage system.
- IT continues to participate in the Artificial Intelligence (AI) working group meetings with the Engineering team.
- IT completed the external audit with CLA group auditors.

Daily Activities

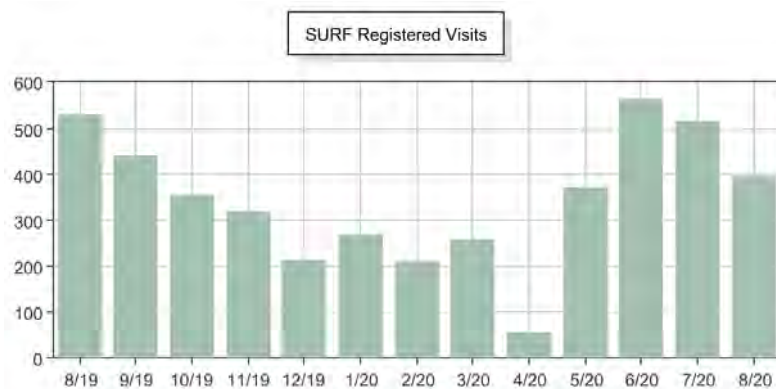
In addition to work order activity, IT monitors and reviews wireless and general network activity and counts, network hardware readiness, VPN Remote Access logs, Firewall logs, and establishes new VPN and Docushare accounts for individuals and user groups, as requested.

Help Desk Activities (measured in hours by department)



June-August Events

- June-August, the Administrative Services team registered 1,477 visits—primarily contractors and users.
- The Visitor Registration Reports for June, July and August were submitted electronically to the SD Fusion Center/Homeland Security utilizing the SURF database reporting tool.



Number of New Visitors, Users and Contractors On-Site

Administrative Services Activities

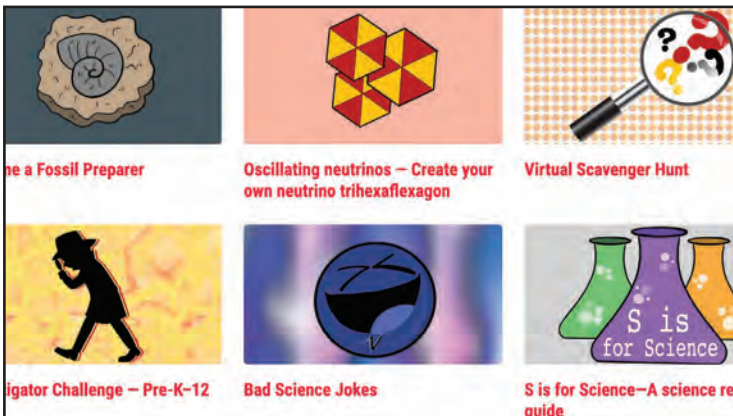
- Lab Receptionist Amelia Pearson continued staffing the front desk daily. Monthly Researcher hours were tracked and Science training records entered; purchase orders were invoiced and closed in ManagerPlus; monthly office supply order was received and sorted; documents were scanned and laminated for various departments; safety waivers were logged into the ESH database; safety training courses were completed by the Admin Services team.
- SURF moved to minimal operations in late March due to the COVID pandemic and many of the larger onsite events scheduled throughout the year have been canceled. However, administrative and logistical support continued to be provided for zoom meetings and onsite activities; organizational charts and phone lists updated; miscellaneous documents copyedited for various departments; SURF Bridge training courses reviewed and new learners added to the system. Administrative Services Manager Mandy Knight has been assisting with the Entrepreneurial Operating System (EOS) workshops with EOS Implementor Mike Roth and the SDSTA Executive Leadership team (Mike Headley, Will McElroy, Jaret Heise, Nancy Geary and Larry Jaudon). The next quarterly session will be held on October 15.
- Administrative Assistant Natasha Wheeler continued to provide administrative support to SURF Foundation Director Staci Miller. Assistance has been provided to research Bloomerang software and add donors, update the Foundation section on the SURF website, research grants for the Ethnobotanical Garden, identify grants to support tribal schools, draft policies, develop stewardship letter templates and transcribe minutes for Foundation board meetings.

- Mandy continued to work with ESH Director Larry Jaudon and Project Manager Pam Hamilton to define SURF badging requirements, develop an RFP and execute a contract to procure and implement a new access control system. SURF currently uses a system to control site access on the surface and underground but the badging system is outdated and requires programming at each lock to update access (a tedious process). An updated access control system is needed that is easier to administer and that can integrate with the SURF Bridge learning management system to verify training compliance before badge access is granted to a contractor, user or employee and track foreign nationals.
- An RFP was released in August for a custodial contract with two interested bidders; however, no vendors attended the pre-bid meeting scheduled on September 4. SDSTA has extended The CleanerZZ LLC's contract term until December 31 but it is critical a new contract is secured by the end of the year as the owner of The CleanerZZ is retiring. The owner has been providing cleaning services to SURF for over 10 years.
- Preparations began for the SDSTA Board of Directors meeting to be held on September 17. A new Flexible Work Options Policy and Procedure have been drafted with input from a small group of SDSTA employees; several of these employees currently telecommute or have had flexible schedules at previous jobs. Also, the Outside Employment Policy has been updated and a new Request for Approval Outside Employment form created. Legal counsel has reviewed them, and the documents submitted for board approval.

APPENDIX

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Communications Department Photo Appendix A

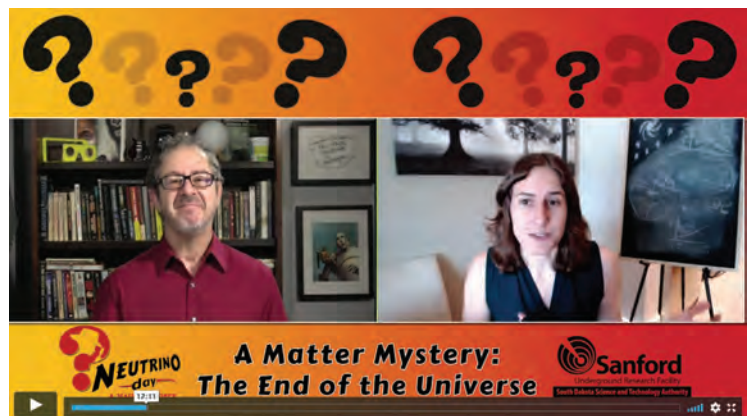


Top: This banner image, used on sanfordlab.org, shows thumbnails of all the video content that was available during Neutrino Day.

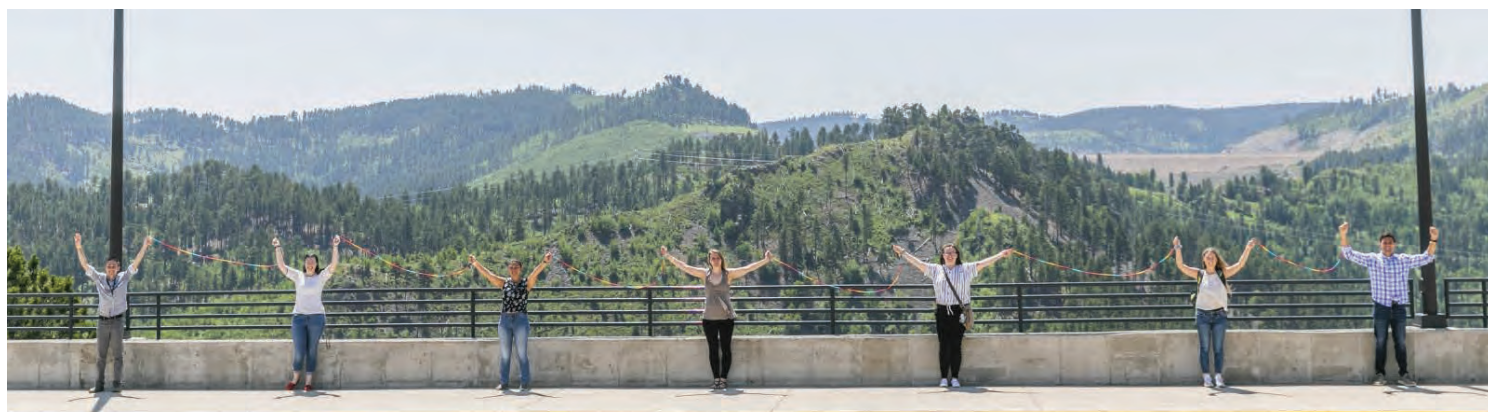
Second from top: A behind the scenes looks at the production studio that was used to live stream content from Neutrino Day. From left: Nick Hubbard, Connie Walter, intern, Cody Cline, Matt Kapust, Erin Broberg.

Third row left: This is a screen capture from neutrinode.com showing some of the graphics created by communications intern, Cody Cline for Neutrino Day.

Bottom right: This screen capture was taken during a live conversation between Science comedian Brian Mallow and author/physicist Katie Mack.



Communications Department Photo Appendix A



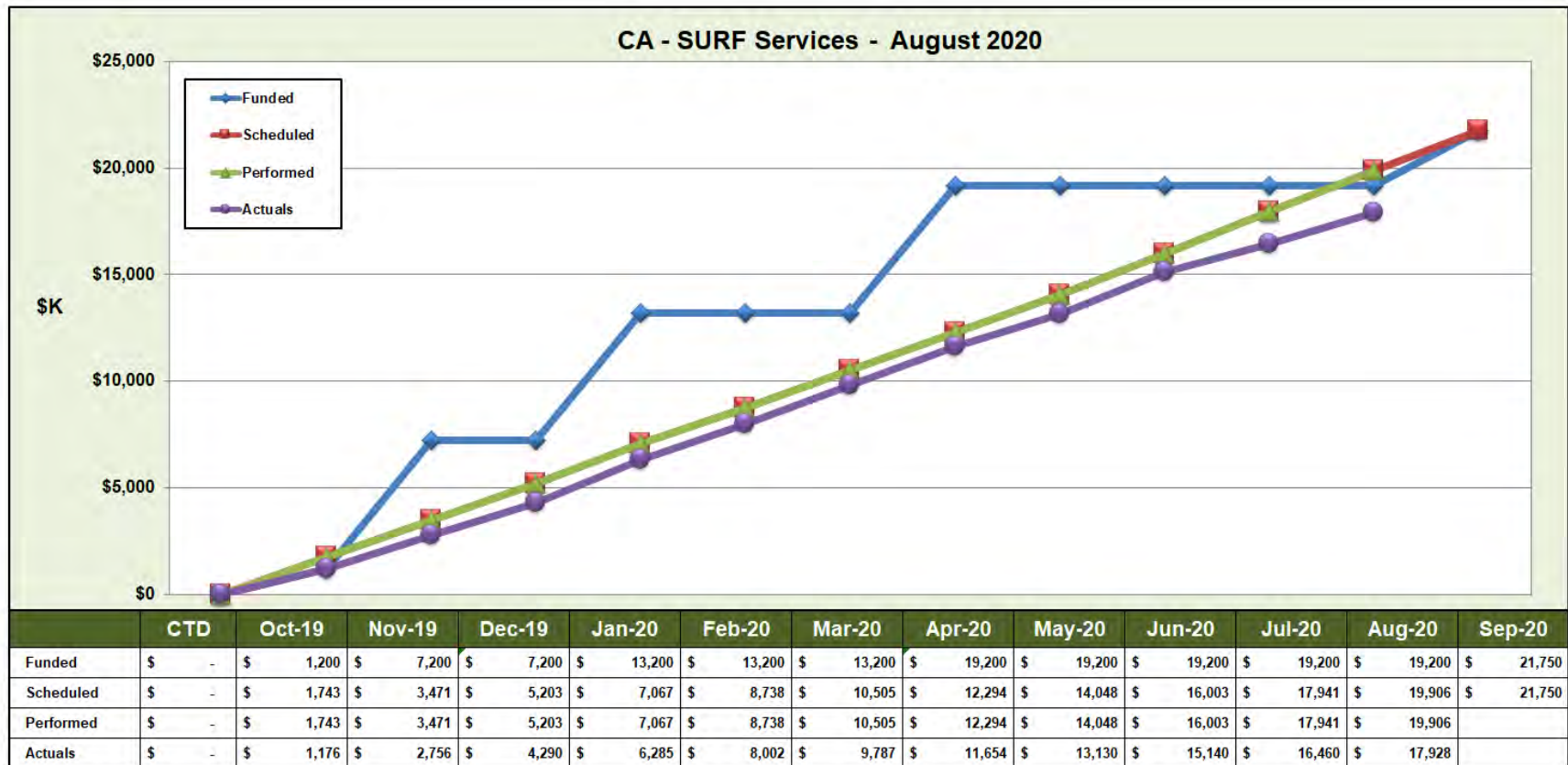
Top: An aerial view of the SURF property, taken in August.

Center two photos: Summer interns pose for a photo while being sure to be physically distanced on the surface and underground at the Yates Station.

Bottom: Vincent Guiseppe, co-spokesperson of the Majorana Collaboration and a research staff member at Oak Ridge National Laboratory, explains how layers of shielding protect the detectors from background “noise,” such as trace amounts of dust and radiation.



**Finance & HR Department
Appendix B**



**DOE SDSTA Fiscal Year 2020 SPA Curve
August 2020**

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Financial Summaries Appendix C

REPORT DATE 09/10/20

SOUTH DAKOTA SCIENCE & TECHNOLOGY

7:47

PAGE 0001

DIVISION: ALL

BALANCE SHEET

ASSETS

AS OF
08/31/20

CURRENT ASSETS

First Interstate Checking	\$	3,178,551.08
First Interstate Other		5,588.19

Total in Local Checking		3,184,139.27
SD Treas: Indemnification		7,680,475.00
SD Treas: Mine Closure		1,497,441.53
SD Treas: Operating		815,881.93
SD Treas: Sanford Gift #2		7,989.70
SD Treas: Spec Sess - Lab		4,307,689.95
SD Treas: Experiments		919,001.75

Total with SD Treasurer		15,228,479.86
Billed A/R		2,015,174.33
Unbilled A/R		560,027.56
Other A/R		371,304.56
Inventory - Supplies		2,422,521.41
Inventory - Warehouse		28,256.08
Other Current Assets		705,797.98

Total Current Assets		24,515,701.05

FIXED ASSETS

Land, Underground & Other	12,633,473.13
Bldgs & Infrastructure	9,707,365.56
Improvements	64,637,443.82
Computer Equipment	570,932.90
Equipment & Fixtures	11,000,464.67
DOE Property Transfer	290,484.17
Accum Depr & Amort	(18,509,641.35)
DOE Prop. Accum Deprec.	(8,617.16)

Total Fixed Assets	80,321,905.74

OTHER ASSETS

Work in Process	1,200,888.69
Pension Deferred Outflows	2,995,814.75
Xenon Purchased	8,934,350.39

Total Other Assets	13,131,053.83

TOTAL ASSETS

=====

\$ 117,968,660.62

=====

DIVISION: ALL

BALANCE SHEET

LIABILITIES & EQUITY

AS OF
08/31/20

CURRENT LIABILITIES

Accounts Payable	\$	1,668,718.11
Other Payables		20,354.57

Total Accounts Payable		1,689,072.68
Accrued Payroll Liab		1,659,380.22

Total Current Liabilities		3,348,452.90

OTHER LIABILITIES

LT Xenon Notes Payable		6,000,000.00
Pension Deferred Inflows		1,266,585.88

Total Other Liabilities		7,266,585.88

EQUITY

Restricted: Indemnificati		7,500,000.00
Restricted: Lab		4,188,598.00
Restricted: Mine Closure		1,497,441.53
Restricted: Sanford Gift2		6,991.97
Restricted: Pension		1,729,228.87
Restricted: Experim. Int.		729,305.00
Restricted: Foundation		897.66

Total Restricted Funds		15,652,463.03
Investment in Gen FA		80,321,905.74
Unrestricted Funds		11,379,253.07

Total Equity		107,353,621.84

TOTAL LIABILITIES & EQUITY

=====

\$ 117,968,660.62

=====

ALL

STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/20

	YR-TO-DATE
REVENUE	
DOE Subcontracts	\$ 4,515,543.03
NSF/NASA Subcontracts	865.68
State Revenue	-
Checking Interest	240.33
Interest Income	25,754.00

TOTAL REVENUE	4,542,403.04
DIRECT COSTS	
Direct Labor	1,214,875.33
Board of Directors	750.00
Capital Outlay >\$5K	350,365.02
Contractual Svcs	333,206.74
Inventory	20,747.67
Supplies	177,733.15
Travel - Domestic	926.32
Travel - Foreign	-
Utilities	312,599.69
Other Direct Costs	2,493.70
Unallow/Unbill Costs	50,915.96

TOTAL DIRECT COSTS	2,464,613.58
INDIRECT COSTS	
Fringe Benefits	957,710.11
Overhead	1,420,161.86

TOTAL INDIRECT COSTS	2,377,871.97

GROSS PROFIT/LOSS ()FROM OPERATIONS	(300,082.51)

OTHER INCOME	
Water Treatment	73,757.91
Miscellaneous Income	825.49
Other Operating Income	6,693.16

TOTAL OTHER INCOME	81,276.56
OTHER EXPENSES	
Other Unallowable Expenses	8,617.16
Misc. Expenses & Donations	-
Loss (Gain) on Sale of Fixed Assets	-
Reclass Incr Net Assets	(383,892.54)

TOTAL OTHER EXPENSES	(375,275.38)
	=====
NET INCOME/LOSS ()	\$ 156,469.43

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

	AS OF 08/31/20	AS OF 08/31/19	\$ CHANGE	% CHANGE
CURRENT ASSETS				
First Interstate Checking	\$ 3,178,551.08	\$ 2,172,439.35	\$ 1,006,111.73	46.31%
First Interstate Other	5,588.19	541.72	5,046.47	931.56%
<hr/>				
Total in Local Checking	3,184,139.27	2,172,981.07	1,011,158.20	46.53%
SD Treas: Indemnification	7,680,475.00	7,656,569.13	23,905.87	0.31%
SD Treas: Mine Closure	1,497,441.53	1,462,524.66	34,916.87	2.39%
SD Treas: Operating	815,881.93	594,166.11	221,715.82	37.32%
SD Treas: Sanford	-	0.40	(0.40)	-100.00%
SD Treas: Sanford Gift #2	7,989.70	29,680.79	(21,691.09)	-73.08%
SD Treas: Spec Sess - Lab	4,307,689.95	6,101,751.86	(1,794,061.91)	-29.40%
SD Treas: SB196 Transfer		0.27	(0.27)	-100.00%
SD Treas: Experiments	919,001.75	1,341,841.08	(422,839.33)	-31.51%
<hr/>				
Total with SD Treasurer	15,228,479.86	17,186,534.30	(1,958,054.44)	-11.39%
Billed A/R	2,015,174.33	3,395,882.78	(1,380,708.45)	-40.66%
Unbilled A/R	560,027.56	(14,727.86)	574,755.42	-3902.50%
Other A/R	371,304.56	382,296.84	(10,992.28)	-2.88%
Inventory - Supplies	2,422,521.41	2,309,679.01	112,842.40	4.89%
Inventory - Warehouse	28,256.08	28,955.50	(699.42)	-2.42%
Other Current Assets	705,797.98	423,077.23	282,720.75	66.82%
<hr/>				
Total Current Assets	24,515,701.05	25,884,678.87	(1,368,977.82)	-5.29%
FIXED ASSETS				
Land, Underground & Other	12,633,473.13	12,633,473.13	-	0.00%
Bldgs & Infrastructure	9,707,365.56	10,079,478.68	(372,113.12)	-3.69%
Improvements	64,637,443.82	62,907,485.67	1,729,958.15	2.75%
Computer Equipment	570,932.90	458,724.17	112,208.73	24.46%
Equipment & Fixtures	11,000,464.67	10,876,194.36	124,270.31	1.14%
DOE Property Transfer	290,484.17	-	290,484.17	100.00%
Accum Depr & Amort	(18,509,641.35)	(16,668,833.06)	(1,840,808.29)	11.04%
DOE Prop. Accum Deprec.	(8,617.16)	-	(8,617.16)	100.00%
<hr/>				
Total Fixed Assets	80,321,905.74	80,286,522.95	35,382.79	0.04%
OTHER ASSETS				
Work in Process	1,200,888.69	1,173,842.61	27,046.08	2.30%
Pension Deferred Outflows	2,995,814.75	3,943,908.40	(948,093.65)	-24.04%
Xenon Purchased	8,934,350.39	8,164,350.39	770,000.00	9.43%
<hr/>				
Total Other Assets	13,131,053.83	13,282,101.40	(151,047.57)	-1.14%
<hr/>				
TOTAL ASSETS	\$ 117,968,660.62	\$ 119,453,303.22	\$ (1,484,642.60)	-1.24%

DIVISION: ALL

COMPARATIVE BALANCE SHEET

LIABILITIES & EQUITY

	AS OF 08/31/20	AS OF 08/31/19	\$ CHANGE	% CHANGE
<hr/>				
CURRENT LIABILITIES				
Accounts Payable	\$ 1,668,718.11	\$ 1,409,027.19	259,690.92	18.43%
Other Payables	20,354.57	4,862.59	15,491.98	318.60%
	-----	-----	-----	-----
Total Accounts Payable	1,689,072.68	1,413,889.78	275,182.90	19.46%
Accrued Payroll Liab	1,659,380.22	1,361,311.49	298,068.73	21.90%
	-----	-----	-----	-----
Total Current Liabilities	3,348,452.90	2,775,201.27	573,251.63	20.66%
OTHER LIABILITIES				
LT Xenon Notes	6,000,000.00	6,000,000.00	-	0.00%
Pension Deferred Inflows	1,266,585.88	783,421.31	483,164.57	61.67%
	-----	-----	-----	-----
Total Other Liabilities	7,266,585.88	6,783,421.31	483,164.57	7.12%
TOTAL LIABILITIES	10,615,038.78	9,558,622.58	1,056,416.20	11.05%
EQUITY				
Restricted: Indemnificati	7,500,000.00	7,500,000.00	-	0.00%
Restricted: Lab	4,188,598.00	6,101,751.86	(1,913,153.86)	-31.35%
Restricted: Mine Closure	1,497,441.53	1,462,524.66	34,916.87	2.39%
Restricted: Sanford Gift2	6,991.97	29,680.79	(22,688.82)	-76.44%
Restricted: Pension	1,729,228.87	3,160,487.09	(1,431,258.22)	-45.29%
Restricted: Experim. Int.	729,305.00	1,188,667.00	(459,362.00)	-38.65%
Restricted: Foundation	897.66	-	897.66	100.00%
	-----	-----	-----	-----
Total Restricted Funds	15,652,463.03	19,443,111.40	(3,790,648.37)	-19.50%
Investment in Gen FA	80,321,905.74	80,286,522.95	35,382.79	0.04%
Unrestricted Funds	11,379,253.07	10,165,046.29	1,214,206.78	11.94%
	-----	-----	-----	-----
TOTAL EQUITY	107,353,621.84	109,894,680.64	(2,541,058.80)	-2.31%
TOTAL LIABILITIES & EQUITY	=====	=====	=====	=====
	\$ 117,968,660.62	\$ 119,453,303.22	\$ (1,484,642.60)	-1.24%
	=====	=====	=====	=====

COMPARATIVE STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/20

	YEAR TO DATE	PRIOR YEAR TO DATE	\$ CHANGE	% CHANGE
REVENUE				
DOE Subcontracts	\$ 4,515,543.03	\$ 4,485,476.05	\$ 30,066.98	0.67%
NSF/NASA Subcontracts	865.68	4,445.43	(3,579.75)	-80.53%
State Revenue	-	2,500,000.00	(2,500,000.00)	-100.00%
Checking Interest	240.33	522.54	(282.21)	-54.01%
Interest Income	25,754.00	29,147.46	(3,393.46)	-11.64%
	-----	-----	-----	-----
TOTAL REVENUE	4,542,403.04	7,019,591.48	(2,477,188.44)	-35.29%
DIRECT COSTS				
Direct Labor	1,214,875.33	1,164,239.95	50,635.38	4.35%
Board of Directors	750.00	300.00	450.00	150.00%
Capital Outlay >\$5K	350,365.02	106,142.57	244,222.45	230.09%
Contractual Svcs	333,206.74	610,125.02	(276,918.28)	-45.39%
Inventory	20,747.67	36,540.46	(15,792.79)	-43.22%
Supplies	177,733.15	313,985.23	(136,252.08)	-43.39%
Travel - Domestic	926.32	10,301.44	(9,375.12)	-91.01%
Travel - Foreign	-	27,303.96	(27,303.96)	-100.00%
Utilities	312,599.69	297,347.42	15,252.27	5.13%
Other Direct Costs	2,493.70	9,361.61	(6,867.91)	-73.36%
Unallow/Unbill Costs	50,915.96	64,526.95	(13,610.99)	-21.09%
	-----	-----	-----	-----
TOTAL DIRECT COSTS	2,464,613.58	2,640,174.61	(175,561.03)	-6.65%
INDIRECT COSTS				
Fringe Benefits	957,710.11	880,007.04	77,703.07	8.83%
Overhead	1,420,161.86	1,193,882.53	226,279.33	18.95%
	-----	-----	-----	-----
TOTAL INDIRECT COSTS	2,377,871.97	2,073,889.57	303,982.40	14.66%
	-----	-----	-----	-----
GROSS PROFIT/LOSS ()	(300,082.51)	2,305,527.30	(2,605,609.81)	517.81%
	-----	-----	-----	-----
OTHER INCOME				
Water Treatment	73,757.91	65,823.39	7,934.52	12.05%
Miscellaneous Income	825.49	5,588.09	(4,762.60)	-85.23%
Other Operating Income	6,693.16	633.19	6,059.97	957.05%
	-----	-----	-----	-----
TOTAL OTHER INCOME	81,276.56	72,044.67	9,231.89	12.81%
OTHER EXPENSES				
Loss (Gain) on Sale of FA	-	-	-	0.00%
Other Unallowable Expense	8,617.16	-	-	100.00%
Reclass Incr Net Assets	(383,892.54)	(266,775.06)	(117,117.48)	43.90%
	-----	-----	-----	-----
TOTAL OTHER EXPENSES	(375,275.38)	(266,775.06)	(108,500.32)	40.67%
	=====	=====	=====	=====
NET INCOME/LOSS ()	\$ 156,469.43	\$ 2,644,347.03	\$ (2,487,877.60)	-94.08%
	=====	=====	=====	=====

South Dakota Science & Technology Authority
Available Resources
8/31/2020

Cash Total Checking	\$ 3,178,551
Cash With State Treasurer	<u>\$ 15,228,480</u>
Total Cash	\$ 18,407,031
Less: Restricted Funds	
Indemnification/Mine Closure/Special Session Lab	\$ (13,485,606)
Experiments (Xenon, Interest,Infrastructure)	<u>\$ (919,002)</u>
Total Cash Available for Infrastructure Upgrades and Authority Operations	\$ 4,002,423
Plus: Accounts Receivable Billed	\$ 2,015,174
Accounts Receivable Unbilled	\$ 560,028
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	<u>\$ (999,235)</u>
(not including accts. pay. for Experiment funding)	
Available Cash and Receivables	<u><u>\$ 5,578,389</u></u>

SDSTA Operating Budget Summary FY2021
Actual vs Budget
Aug. 2021 & YTD

	August 2020	Budget	\$ Over/Under Budget	% of Budget	Actual YTD	YTD Budget	\$ Over/Under Budget	% of Budget	% Remaining
									100%
SDSTA (Authority) Direct Charges									
Board of Directors	\$24,972.00	\$22,166.00	-\$2,806.00	112.66%	\$45,328.00	\$44,332.00	-\$996.00	102.25%	-2.25%
Executive Office	\$22,922.00	\$29,734.00	\$6,812.00	77.09%	\$37,780.00	\$59,468.00	\$21,688.00	63.53%	36.47%
Science Center E & O	\$12,234.00	\$14,000.00	\$1,766.00	87.39%	\$30,016.00	\$34,500.00	\$4,484.00	87.00%	13.00%
Science Liaison	-\$307.00	\$0.00	\$307.00	100.0%	\$603.00	\$0.00	-\$603.00	100.00%	0.00%
Subtotal	\$59,821.00	\$65,900.00	\$6,079.00	90.78%	\$113,727.00	\$138,300.00	\$24,573.00	82.23%	17.77%
Federal/State Funding - Direct Charges									
Fermi P.O.#849934 Prof. Services	\$18,838.00	\$25,000.00	\$6,162.00	75.35%	\$44,217.00	\$58,972.00	\$14,755.00	74.98%	25.02%
Fermi C#630223 Ross Rehab	\$19,589.00	\$26,095.00	\$6,506.00	75.07%	\$40,458.00	\$51,095.00	\$10,637.00	79.18%	20.82%
Fermi C#654406 Ross Logist.Supp	\$169,151.00	\$199,935.00	\$30,784.00	84.6%	\$363,164.00	\$409,935.00	\$46,771.00	88.59%	11.41%
Fermi Misc. Contracts	\$0.00	\$2,000.00	\$2,000.00	0.0%	\$1,255.00	\$4,000.00	\$2,745.00	31.38%	68.63%
Office of Science Coop.Agree	\$986,728.00	\$1,319,796.00	\$333,068.00	74.76%	\$1,886,729.00	\$2,682,852.00	\$796,123.00	70.33%	29.67%
LBNL SIGMA-V C#7371823	\$13,134.00	\$7,500.00	-\$5,634.00	175.12%	\$15,246.00	\$11,000.00	-\$4,246.00	138.60%	-38.60%
LBNL LZExp. Operat.C#7525117	\$67,556.00	\$85,000.00	\$17,444.00	79.48%	\$226,496.00	\$245,100.00	\$18,604.00	92.41%	7.59%
MJD (Majorana) ORNL144149	\$1,804.00	\$2,000.00	\$196.00	90.2%	\$3,639.00	\$4,000.00	\$361.00	90.98%	9.03%
BHSU-UGCampus Gen.Serv.	\$0.00	\$200.00	\$200.00	0.0%	\$0.00	\$400.00	\$400.00	0.00%	100.00%
SDSM&Tech CASPAR Gen.Serv.	\$390.00	\$500.00	\$110.00	78.0%	\$558.00	\$1,000.00	\$442.00	55.80%	44.20%
* Kiewit/Alberici JV	\$4,313.00	\$4,313.00	\$0.00	100.0%	\$4,313.00	\$4,313.00	\$0.00	0.00%	0.00%
Subtotal	\$1,281,503.00	\$1,672,339.00	\$390,836.00	76.63%	\$2,586,075.00	\$3,472,667.00	\$886,592.00	74.47%	25.53%
Indirect Expenses									
Indirect Charges Personnel	\$410,186.00	\$422,184.00	\$11,998.00	97.16%	\$804,899.00	\$887,370.00	\$82,471.00	90.71%	9.29%
Indirect Charges Other	\$459,783.00	\$537,324.00	\$77,541.00	85.57%	\$894,635.00	\$1,105,884.00	\$211,249.00	80.90%	19.10%
Subtotal	\$869,969.00	\$959,508.00	\$89,539.00	90.67%	\$1,699,534.00	\$1,993,254.00	\$293,720.00	85.26%	14.74%
Totals	\$2,211,293.00	\$2,697,747.00	\$486,454.00	81.97%	\$4,399,336.00	\$5,604,221.00	\$1,204,885.00	78.50%	21.50%
* Private Corporations (Commercial Group)									

SDSTA CAPEX Budget Summary FY21
Actual vs Budget
Aug. YTD FY2021

<u>Budget Area</u>	<u>Actual Month</u>	<u>FY2021 Monthly Budget</u>	<u>\$ Over/Under Budget</u>	<u>% of Budget</u>	<u>Actual YTD</u>	<u>FY2021 YTD Budget</u>	<u>\$ Over/Under Budget</u>	<u>% of Budget</u>	<u>% Remaining</u>
									100.00%
Operational CAPEX	\$ 701,815.97	\$ 711,979.00	\$ 10,163.03	98.57%	\$ 1,200,888.69	\$ 5,068,074.00	\$ 3,867,185.31	23.70%	76.30%
TOTAL CAPEX	\$ 701,815.97	\$ 711,979.00	\$ 10,163.03	98.57%	\$ 1,200,888.69	\$ 5,068,074.00	\$ 3,867,185.31	23.70%	76.30%

SD Science & Technology Authority
Operational CAPEX Budget
YTD FY2021 Actual vs Budget

Project #	Project Description	Aug. YTD FY2021	FY2021 Budget	\$ Over/UnderBudget	% of Budget	% Remaining
						100%
CAP2014-01	Sanford Visitor Center Sign/Display	\$ -	\$ 54,000.00	\$ 54,000.00	0.00%	100.00%
CAP2016-03	LZ Xenon Gas	\$ 23,957.50	\$ 234,000.00	\$ 210,042.50	10.24%	89.76%
CAP2019-01	Maintenance Support Facility	\$ 1,176,931.19	\$ 4,780,074.00	\$ 3,603,142.81	24.62%	75.38%
	Totals	\$ 1,200,888.69	\$ 5,068,074.00	\$ 3,867,185.31	23.70%	76.30%

SD Science & Technology Authority
Operational CAPEX Budget
Monthly Actual vs Budget

Project #	Project Description	August FY2021	Budget	\$ Over/UnderBudget	% of Budget
CAP2014-01	Sanford Visitor Center Displays/Monitoring	\$ -	\$ -	\$ -	
CAP2016-03	LZ Xenon Gas	\$ 11,978.75	\$ 11,979.00	\$ 0.25	100.00%
CAP2019-01	Maintenance Support Facility	\$ 689,837.22	\$ 700,000.00	\$ 10,162.78	98.55%
	Monthly Totals	\$ 701,815.97	\$ 711,979.00	\$ 10,163.03	98.57%

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SDSTA Policies and Procedures—Mr. Mike Headley

Attached are the following new and updated SDSTA Policies reviewed by legal counsel and recommended for approval:

- To be included in Section 2 “Employee Handbook” of the SDSTA Policies and Procedures Manual
 - Flexible Work Options Policy (*new policy providing guidelines to facilitate flexible work option arrangements for eligible employees*)
 - Outside Employment Policy (*policy updated requiring SDSTA employees to submit a Request for Approval form to supervisor for approval before accepting outside employment*); Request Form attached

The Flexible Work Options Procedure has been reviewed by legal counsel and approved by the executive director. (attached, informational)

Recommended Action:

Motion to approve the new Flexible Work Options Policy and updated Outside Employment Policy, as presented.

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Flexible Work Options Policy (submitted for board approval at 9/17/20 mtg)

The workplace culture at the Sanford Underground Research Facility (SURF) is rooted in collaboration and continuous discourse regarding our work to provide exceptional service to SURF users. The South Dakota Science and Technology Authority (SDSTA) recognizes flexibility in work schedules and work location helps attract and retain the best workforce possible. This policy establishes guidelines to facilitate flexible work option arrangements for eligible employees in appropriate circumstances to best support the SDSTA mission. These options do not change the basic terms and conditions of SDSTA employment and are not entitlements. Any flexible work arrangements offered or approved are subject to change or revocation at the discretion of the SDSTA.

A. Eligibility

Though flexible work options might be viable alternatives for certain eligible SDSTA employees, it is not a right; it is an option that can be modified or revoked by the SDSTA at any time. The employee must have successfully completed their six-month probationary period before requesting authorization to use flexible work options. In special circumstances, the Executive Director may consider waiving the probationary period for the purposes of flexible work options. For a variety of operational reasons, these flexible work options may not be extended to all employees who meet the minimum eligibility criteria.

Management will determine the specific procedures for evaluating, approving or denying flexible work option requests in a manner consistent with this policy.

B. Flexible Work Options

Flexible work options include flextime and telecommuting. Approval of the use of flextime and telecommuting must be approved by the manager/supervisor. *Reference related Flexible Work Options Procedure.*

1. Flextime

Flextime allows an employee to request flexibility in start and end times to the workday, or the option of working a full schedule over fewer days. It offers employees some flexibility regarding their daily work schedule, provided it is compatible with their job responsibilities and the SDSTA's operational needs.

An employee who is approved for flextime must complete and sign an SDSTA Flexible Work Options Agreement, which must be reviewed at least annually by their manager/supervisor.

2. Telecommuting

Telecommuting allows an employee to fulfill job responsibilities at an approved offsite location for one or more days a week on a routine basis. A temporary change to the offsite location shall be approved in advance by the manager/supervisor. The arrangement may cover all or part of an employee's

scheduled hours and may be on an occasional or regular basis. In some situations, a telecommuter may be designated as a remote worker.

The telecommuter usually works from home on specified days and at their primary worksite the remainder of the time, retaining flexibility to meet the needs of their department. The primary SDSTA worksite is the location at 630 E. Summit St, Lead, South Dakota, at which the employee is assigned to perform their work.

An employee who is approved to telecommute must complete and sign an SDSTA Flexible Work Options Agreement and it must be reviewed at least annually by their manager/supervisor and any other agreements and documents the SDSTA may require. The employee is responsible to ensure, at their own expense, that their telecommuting worksite is safe and ergonomically appropriate.

The telecommuter is expected to work the approved work schedule as determined by their manager/supervisor and be fully accessible during those hours (by phone and email). The approved work schedule must include the SDSTA core work hours. The telecommuter must attend required meetings and functions (some of which may be on the primary SDSTA worksite when required), including on days the employee would customarily telecommute.

Remote Worker—In appropriate circumstances, the SDSTA may hire or transition existing employees to work remotely. A remote worker is an employee who works exclusively off site as part of the terms and conditions of appointment and does not maintain an office at the primary SDSTA worksite. The remote worker must be accessible during regular work hours and participate in meetings when appropriate. Non-exempt staff are not eligible for remote worker designation.

C. Equipment

Employees must comply with all SDSTA policies and procedures including adequately safeguarding and securing any restricted or confidential information with which they work in accordance with applicable law. Failure to fulfill work requirements will result in immediate revocation of the Flexible Work Options Agreement and/or possible disciplinary action (including termination of employment).

The employee is responsible for all expenses associated with setting up, operating and maintaining the telework site. It is expected the employee will use SDSTA-issued computer hardware and/or software for telework when possible.

- SDSTA will not purchase a duplicate computer solely for the purpose of telework.
- SDSTA will not provide support for non-SDSTA-owned computer hardware and/or software or home internet/phone service.

It is the employee's responsibility to report all lost or stolen IT assets immediately to their manager/supervisor.

In the event the employee terminates employment, or the flexible work option is rescinded, all SDSTA provided equipment, software, data and supplies must be returned to the SDSTA in a safe and secure manner.

D. Work Focus

The telecommuting employee's work focus must be equal to those employees who are working onsite. Flexible work options are not intended to permit employees to have time to work at other jobs, provide dependent or other care during work hours, run their own businesses, or mix vacation and work activities. Engagement in any such activities during expected work time will result in immediate revocation of the Flexible Work Options Agreement and/or possible disciplinary action (including termination of employment).

The employee is required to accurately report time worked including sick leave and vacation leave. Misreporting time worked or leave is a violation of federal law. It can lead to the SDSTA being barred from future federal contracts and funding. Employees misreporting time will be subject to the SDSTA Progressive Discipline process up to and including termination of employment.

Employees requesting sick leave or vacation leave shall use the standard SDSTA leave request process. *Reference Salary and Hourly Payroll Policy and Leave Policy.*

E. Liability

The telecommuter/remote worker will be covered by workers' compensation for job-related injuries that occur in the designated telework location during the defined work period so long as they are otherwise compensable under applicable law. In the case of injury occurring during the defined work period, the employee shall report the injury to the manager/supervisor by the end of the same workday. Workers' compensation will not apply to non job-related injuries that might occur in the home. SDSTA does not assume responsibility for injury to any persons other than the teleworker at the telework site.

This Policy is not a contract and is not intended to create any obligations on the SDSTA. This Policy may be terminated or changed by the SDSTA at any time, with or without notice.

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Outside Employment Policy (updated for board approval at 9/17/20 mtg)

It is the policy of the South Dakota Science and Technology Authority (SDSTA) that employees may engage in outside employment or political activity that does not conflict with official duties, create a real or apparent conflict of interest, or violate provisions of law or SDSTA policies.

A. Outside employment

Employees may engage in outside employment or business activities provided that, in the opinion of the ~~appointing authority~~ Executive Director, there is no conflict with working hours, work efficiency, or the interests of the SDSTA, and provided no prohibited conflict of interest would result. Work assignments and schedules will not be modified to allow an employee to perform duties or services unrelated to the SDSTA.

Employees who wish to perform outside employment or business activities shall complete and submit an Outside Employment Form to their manager/supervisor for review. The Executive Director will review the form for final approval. The employee must obtain the Executive Director's approval in advance of performing any outside employment or business activities.

If the employee's work performance or behavior is adversely affected by outside employment or business activities or the activities become a prohibited conflict of interest, the SDSTA may require the employee to immediately terminate such activity.

B. Political activity

SDSTA employees are prohibited from using their position to influence or coerce the political action of a person or group of people. Active participation is allowed in political management or in political campaigns except during working hours. Employees may also hold an elective office in political clubs or organizations which do not interfere with the normal performance of job responsibilities, except as prohibited by law. Employees whose positions are partially or wholly funded by federal monies are restricted from political activity by the Hatch Act.

Neither state nor federal law prevents activity of a non-partisan type not specifically identified with a national or state political party. Questions relating to constitutional amendments, referendums, approval of state laws and other issues of similar character are not deemed specifically identified with a national or state political party. For example, school board elections and many city elections are non-partisan.

REQUEST FOR APPROVAL OUTSIDE EMPLOYMENT

Employees of the South Dakota Science and Technology Authority must be free from the appearance of conflict or impropriety when performing official duties. The Executive Director *may* approve outside employment or business activities upon written request of the employee. However, if the employee's work performance or behavior is adversely affected by the outside employment or business activities, the Executive Director may revoke approval of outside employment or business activities and require the employee to immediately terminate such activity.

Employees who have an interest in outside employment or business activities shall complete and submit this form to their manager/supervisor. After the manager/supervisor reviews the submitted form, the Executive Director will review the request for final approval.

Employees may NOT engage in outside employment until the Executive Director has provided written approval on the form below.

1. Name: _____ Department: _____
(please print)

2. Job Title: _____

3. Name of outside employer: _____
(Indicate self-employment, if applicable)

4. Duties of outside employment or business activities:

5. Hours per week (anticipated) of outside employment: _____

Employee Signature: _____ Date: _____

Manager/Supervisor Signature: _____ Date: _____

Return to the Human Resources Office

Executive Director Review: ☐ Approve ☐ Disapprove

Executive Director Signature: _____ Date: _____

Flexible Work Options Draft Procedure (approved by Exec Director, 9/9/20)

This procedure describes the flexible work options that managers and supervisors can use to provide opportunities to improve employee attraction, retention and morale while supporting the SDSTA mission. Flexible work options can also increase productivity, decrease pressure on limited parking and office facilities and reduce energy usage and air pollution.

A. Applicability

This procedure applies to all SDSTA part-time and full-time employees. However, due to the unique nature of the work performed at Sanford Underground Research Facility (SURF) and the unique requirements for each role, not all employees are eligible to telework.

B. Definitions

Terms used in this procedure mean:

1. Flexible Work Options – options include flextime and telecommuting.
2. Flextime – allows an employee to request flexibility in start and end times to the workday, or the option of working a full schedule over fewer days. It offers employees some flexibility regarding their daily work schedule, provided it is compatible with their job responsibilities and SDSTA's operational needs.
3. Primary SDSTA worksite – the SDSTA/SURF primary location at 630 East Summit Street in Lead, South Dakota, at which employees are assigned to perform their work.
4. Remote Worker – an SDSTA employee who works exclusively off site as part of the terms and conditions of appointment and does not maintain an office at the primary SDSTA worksite.
5. Telecommuting – also known as telework, is a work option in which some or all of an employee's duties are performed away from the primary SDSTA worksite for one or more days a week on a routine basis. The employee usually works from home on specified days and at their primary SDSTA worksite the remainder of the time, retaining flexibility to meet the needs of their department.

C. Responsibilities

1. Director/Manager/Supervisor
 - a) Determines whether flexible work options are appropriate within the department.
 - b) Approves employee Flexible Work Options Agreement and reviews the agreement at least annually. Approvals are granted for one year at a time. A copy of the employee's agreement shall be retained in the employee's personnel file.

- c) Approves any changes in telecommuter's work location or schedule.
- d) Communicates regularly with employee.
- e) Evaluates employee's work on an ongoing basis to ensure that work quality, efficiency and productivity are not compromised by the telecommuting arrangement.
- f) Schedules weekly department meetings.

2. Employee

- a) Completes and signs SDSTA Flexible Work Options Agreement and any other agreements and documents SDSTA may require.
- b) Renewal of Flexible Work Options Agreement must be completed annually for approval by the manager/supervisor.
- c) Ensures telecommuting work location is ergonomically appropriate and maintains a safe work environment at their own expense in accordance with US Department of Labor regulations.
- d) Communicates change in work location to manager/supervisor in advance.
- e) Communicates regularly with manager/supervisor.
- f) Complies with all SDSTA policies and procedures.
- g) Accurately reports time worked including sick leave and vacation leave.
 - Requests manager/supervisor approval to use vacation, sick or other leave in the same manner as when working at the primary SDSTA worksite.
 - A non-exempt employee who is approved to telecommute is required to strictly adhere to and accurately report their work hours. Prior approval is required for any overtime worked. *Reference Salary and Hourly Payroll Policy.*
 - Misreporting time worked or leave is a violation of federal law. It can lead to the SDSTA being barred from future federal contracts and funding. Employees misreporting time will be subject to the SDSTA Progressive Discipline process up to and including termination of employment.

Employees requesting sick leave or vacation leave shall use the standard SDSTA leave request process. *Reference Leave Policy.*

D. Eligibility and Expectations

For a variety of operational reasons, flexible work options may not be extended to all employees. Decisions about the suitability of telecommuting are discretionary and approved by the employee's manager/supervisor, in consultation with the Executive Director and Human Resources Administrator.

When considering eligibility, managers/supervisors should take into account the nature of work/job responsibilities. They should also consider the employee's demonstrated conscientiousness about work time and productivity and work habits, including their ability to be self-motivated and have minimal face-to-face daily supervision.

When considering whether remote working is appropriate, managers/supervisors should take into account the nature of the work and whether the department can maintain the quality of their services to accomplish the SDSTA mission.

1. The employee must have successfully completed their six-month probationary period before requesting authorization to use flexible work options. In special circumstances, the Executive Director may consider waiving the probationary period for the purposes of flexible work options.
2. Work Schedule
 - a) A telecommuter is expected to:
 - Adhere to regularly scheduled and approved work hours (determined by the Department) and remain fully accessible during those hours.
 - Attend weekly department meetings and, if needed, check in daily with the manager/supervisor to discuss status and open issues.
 - Be available to come into the office if a business need arises without advance notice. (The manager/supervisor will provide at least 24-hour notice when possible.)
 - b) A remote worker must be accessible during work hours and participate in meetings when appropriate.
3. The telecommuting employee's work focus must be equal to those employees who are working onsite. All work shall be performed according to the same high standards as would normally be expected at the primary SDSTA worksite. The manager/supervisor reserves the right to assign work as necessary at any work site. Failure to fulfill work requirements, both qualitative and quantitative, will result in immediate revocation of the Flexible Work Options Agreement and/or possible disciplinary action including termination of employment.
4. Flexible work options are not intended to permit employees to:
 - a) Have time to work at other jobs.
 - b) Provide dependent or other care during work hours.
 - c) Run their own businesses.
 - d) Mix vacation and work activities.

Engagement in any such activities during expected work time will result in immediate revocation of the Flexible Work Options Agreement and/or possible disciplinary action including termination of employment.

5. An employee whose work cannot be performed at a location away from their primary SDSTA worksite is not eligible to telecommute.
 - a) Most field positions and some office positions will not be eligible for telework due to the nature of the position and inability of the work to be performed remotely.

- b) Managers and supervisors overseeing field staff will not be eligible for telework except in limited circumstances, such as when there is a safety, health, or business need for the employee to work remotely.

E. Safety and Equipment; Information Security

The telecommuter/remote worker shall maintain a safe, secure, and ergonomic work environment and will report work-related injuries to the manager/supervisor by the end of the same workday. The telecommuter/remote worker agrees to hold the SDSTA harmless for injury to others at the telecommute location. The telecommuter/remote worker:

1. Is responsible for providing space, telephone, networking and/or Internet capabilities at the telecommute location and shall not be reimbursed by the SDSTA for these or related expenses except as approved in writing by the Executive Director. Internet access must be via DSL, Cable Modem or an equivalent bandwidth network. SDSTA is committed to supporting telework by offering a Virtual Private Network (vpn) for use at the remote location. However, network access is not guaranteed.
2. Is required to use SDSTA-issued computer hardware and/or software for telework when possible. SDSTA-issued equipment used for telework will be documented on the Flexible Work Options Agreement.
3. Agrees to protect SDSTA-owned equipment, records, and materials from unauthorized or accidental access, use, modification, destruction or disclosure. The precautions described in this procedure apply regardless of the storage media on which information is maintained, the locations where the information is stored, the systems used to process the information or the process by which the information is stored.
4. Agrees to report to manager/supervisor any incidents of loss, damage or unauthorized access immediately.
5. Understands that all equipment, records and materials provided by the SDSTA shall remain the property of the SDSTA.
6. Agrees to return SDSTA-owned equipment, software, data, records and supplies within five (5) business days of termination of the agreement in a safe and secure manner.
7. Is responsible for tax consequences, if any, of this arrangement, and for conformance to any local zoning regulations.

SDSTA will not:

1. Purchase duplicate computer hardware and/or software solely for the purpose of telework.

2. Reimburse the telecommuter/remote worker for incidental expenses, such as utilities, increases to homeowners' liability insurance premiums, etc. or personal items such as laptop cases, backpacks, etc.
3. Provide inclement weather pay while working at the telework location.
4. Provide support for non-SDSTA-owned computer hardware and/or software or home internet or phone service.

F. Travel

Travel between an employee's home and any telecommuting location is considered part of an employee's normal commute and is non-reimbursable. SDSTA will continue to provide telecommuting employees with appropriate reimbursement for approved, SDSTA-related business travel in accordance with its travel reimbursement policies.

G. Liability

The telecommuter/remote worker will be covered by workers' compensation for job-related injuries that occur in the designated telework location, during the defined work period so long as they are otherwise compensable under applicable law. In the case of injury occurring during the defined work period, the telecommuter/remote worker shall report the injury to the manager/supervisor by the end of the same workday. Workers' compensation is unlikely to apply to non-job-related injuries that might occur at the designated telework location. SDSTA does not assume responsibility for injury to any persons other than the telecommuter/remote worker at the designated telework location.

This Procedure and related Policy are not a contract and are not intended to create any obligations on the part of SDSTA. This Procedure and related Policy may be terminated or changed by the SDSTA at any time, with or without notice.

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Executive Session—Chairperson Casey Peterson

Meeting closed to public during executive session.

See recommended motion below.

Recommended Action:

Motion to enter executive session to discuss personnel matters and to consult with legal counsel concerning contractual and legal matters.

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Report from Executive Session—Chairperson Casey Peterson

See recommended motion below.

Recommended Action:

“The board consulted with legal counsel concerning contractual and legal matters. No action was taken.”

OR

...as discussed and stated otherwise

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Approval of Commercial Land Lease Agreement—Mr. Mike Headley

Attached is the land lease agreement for review and discussion.
See suggested motion below.

Recommended Action:

Motion to authorize the Executive Director and Legal Counsel to negotiate the final terms of the land lease agreement between SDSTA and Caterpillar Global Mining LLC and authorize the Executive Director to sign the agreement.

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LAND LEASE AGREEMENT

This Land Lease Agreement (this "Lease") is entered into and effective as of the 15th day of September, 2020 ("Effective Date") by and between the South Dakota Science and Technology Authority, a body corporate and politic created by South Dakota Codified Laws ("SDCL") Ch. 1-16H ("Lessor"), and Caterpillar Global Mining LLC, a Delaware limited liability company ("Lessee").

1. SITE DESCRIPTION

1.1 **Leased Site.** Lessor shall lease to Lessee a site located at Sanford Underground Research Facility ("SURF") located at 630 E. Summit Street in Lead, South Dakota 57754, as more fully described on Exhibit A attached hereto, for the purpose of an underground mining technology testing and customer showcase demonstration area (the "Leased Site"). The Leased Site consists of two existing rooms located on the SURF 1700 foot level underground.

1.2. **Easement.** Lessor shall convey to Lessee an easement for the purpose of parking at the SURF campus, the use of up to two (2) offices on the surface, and the use of a part of the 1550 and 1700 foot level drifts and certain related ramps for product development, customer demonstrations, and ingress and egress to the Leased Site, all as is more fully shown on Exhibit A (the "Easement.>").

2. LEASE OF SITE and GRANT OF EASEMENT

2.1 Lessor hereby leases the Leased Site to Lessee, subject to certain rights reserved in the Lessor as described herein. Lessor reserves to itself the right to access the Leased Site for maintenance and for inspection to determine compliance with Lessor's safety protocols.

2.2. Lessor hereby conveys the Easement to Lessee, subject to certain rights reserved in the Lessor as described herein. Lessor reserves to itself the right to use of the property covered by the Easement for inspections and maintenance, provided, however that Lessor's use shall not unreasonably interfere with Lessee's use of the property covered by the Easement.

2.3 Lessor shall limit access to the Leased Site and the underground portions of the Easement to the employees, representatives, contractors, and consultants of Lessor with a legitimate need to access said areas; to the employees, representatives, contractors, and consultants of Lessee; to the invited guests of Lessee; and to representatives of governmental entities with regulatory jurisdiction related to the Leased Site or the Easement. Except as permitted by Lessee or as may be required for the protection of the health and safety of the occupants thereof, Lessor will not permit is employees, representatives, contractors, or consultants to access the Leased Site or the underground portions of the Easement while Lessee is engaged in sustained product development or customary demonstration activities.

2.4 Upon written agreement of the parties, the Leased Site and/or Easement may be expanded to other areas of SURF, including a portion of the 4850 level Any expansion of the Leased Site and/or Easement will be at Lessor's sole discretion and subject to such conditions as Lessor may reasonably impose, and in any event will be conditioned in such a way that the use of the 4850 level for science and the construction of Lessor's Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment shall take priority over any occupancy or uses by Lessee.



2.5 Anything elsewhere in this Lease to the contrary notwithstanding, any use or occupancy of the Leased Site (as now existing or expanded in the future) or the Easement by Lessee may not create a safety hazard and may not interfere with existing or future scientific uses. Lessor will act in good faith to notify Lessee of any existing or future uses that may impact Lessee's use and occupancy of the Leased Site or the Easement. Without limiting the generality of the foregoing, Lessor may restrict access to the Easement or the Leased Site if Lessor, acting in good faith, determines such restriction is necessary for the protection of the health of Lessor's employees and other occupants of SURF due to an epidemic or other public health concern.

2.6 Lessee's rights under this Lease will include the right to bring third parties including, but not limited to, Lessee's customers, personnel from the South Dakota School of Mines, and companies participating in the CatLabs MineStar™ Consortium to the Leased Site for the aforementioned purposes. Access by any person or entity will be subject to the terms and conditions of this Lease. Anything in the foregoing or elsewhere in this Lease to the contrary notwithstanding, the Lessee shall obtain the Lessor's prior written consent for any foreign visitors who wish to access SURF. No later than one week before the foreign visitor's arrival at SURF, the Lessee shall provide the foreign visitor's full name, country of birth, and country of citizenship to Lessor's Administrative Services Office for review and preliminary, conditional consent. On the day of arrival at SURF, each foreign visitor shall provide proof of identity and citizenship such as a passport or visa to verify the foreign national's identity and authority to work (when applicable for the activities involved) in the United States. Lessor reserves the right to deny access to any foreign national, including but not limited to foreign nationals who cannot verify their identity and authority to work in the United States.

2.7 A SURF access badge will be issued to individuals upon completion of safety training and approval by the Environmental, Safety and Health ("ESH") Director. At the conclusion of the visit or assignment, all badges or keys issued to the individual must be returned to the SURF Administrative Services Office. The SURF check-out procedure shall be followed to ensure all items of concern are returned.

2.8 Access to the Yates Shaft and to the underground areas shall be subject to underground occupancy limits and to the availability of space on the Yates cage. Lessor will manage access to the Yates Shaft in good faith in order to minimize conflicts.

3. TERM AND TERMINATION

The initial term of this Lease shall begin on _____, 2020 and shall continue until _____, 2030, (the "Term") unless terminated in accordance with the terms of this Lease.

3.1 Lessee will have the right to terminate this Lease for convenience at no penalty to Lessee prior to (i) twelve (12) months after the Lease Effective Date, and (ii) anytime thereafter, provided Lessee has made the Minetec hardware available to Lessor and as described herein, and had such equipment installed at the 4850 level, and the Yates and Ross hoist stations listed on Exhibit B, attached hereto, at Lessee's sole expense. Lessor may terminate the Lease for convenience due to (i) lack of funding to maintain its operations at SURF, (ii) the U.S. Department of Energy ("DOE") withdraws its consent to the concurrent use of SURF for the purposes stated herein; or (iii) the use provided for herein otherwise becomes incompatible with the predominant



other uses of SURF as a research laboratory. Lessor will act in good faith to promptly notify Lessee of an upcoming termination when one of the above criteria is triggered, and in any event, no less than one (1) year before the termination date. If Lessor terminates for convenience during the first five (5) years of the Term of the Lease, Lessee may, at its own expense, remove the Minetec hardware and software provided by Lessee. Either Party may terminate this Lease for cause, including, but not limited to, serious or repeated violations of Lessor's environmental, safety, and health requirements, failure to make a payment requirement hereunder, material breach, and insolvency.

4. **CONSIDERATION**

Lessee shall pay to Lessor, as rent for the use of the Leased Site and the Easement during the Term of this Lease, the sum of One Hundred Fifty Thousand and 00/100 Dollars (\$150,000.00) per annum, payable within forty-five (45) days after Lessee's receipt of invoice, which is to be sent by Lessor on January 1, 2021, and thereafter the yearly invoice will be sent by Lessor to Lessee in each successive January during the Term (the "Base Rent"). Each installment of Base Rent shall be paid without demand via Automated Clearing House ("ACH") payment. All billing statements, reconciliations, invoices or other inquiries should be sent to Caterpillar_Real_Estate@cat.com. In the event this Lease is terminated early by either Party, Lessor will immediately refund to Lessee the prorated portion of the annual Base Rent representing the remaining used portion of the twelve (12) month period, and Lessor will not be liable for further payments of Base Rent.

5. **LESSOR WARRANTIES AND REPRESENTATIONS**

5.1 Warranty of Authority: Lessor warrants and represents that Lessor is duly authorized to enter into this Lease and perform Lessor's duties and obligations hereunder.

5.2 Warranty of Fitness for Purpose and Environmental Matters: Lessor warrants and represents that the Leased Site is in good condition. Furthermore, Lessor hereby warrants and represents that:

5.2.1 Lessor is not now, nor has it been, in violation of any judgment, decree, order, law, license, rule or regulation pertaining to environmental matters with regard to the Leased Site. These include, but are not limited to, the Recourse Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation and liability Act of 1980 as amended (CERCLA); the Superfund Amendments and Reauthorization Act of 1986; the Federal Water Pollution Control Act; the Toxic Substance Control Act; or any other federal, state or local statute, regulation, ordinance, order or decree relating to health, safety or the environment (hereinafter, the "Environmental Laws"). The foregoing warranty is made on the part of Lessor only, and not any person or entity which previously owned or controlled what is now SURF or any part thereof.

5.2.2 Lessor has not received, nor is it aware of any reason that it might receive, notice that it has been identified by the United States Environmental Protection Agency as a potentially responsible party under CERCLA with respect to the Leased Site being listed on the National Priorities List under the Environmental Laws. Lessor has not received, nor is it aware of any reason that it might receive notice that any hazardous waste, as defined by the Environmental Laws ("Hazardous Waste"); or any toxic or hazardous substance,



hazardous materials, oil or other chemicals or substances regulated or defined by any Environmental Laws ("Hazardous Substances") have been found at the Leased Site by a federal, state or local agency which is conducting a remedial investigation or other action pursuant to any Environmental Laws. The foregoing warranty is made on the part of Lessor only, and not any predecessor in interest, nor does it relate to any responsibility which it may be claimed Lessor has for Hazardous Waste or Hazardous Substances at the Leased Site or the Easement which were placed or deposited (intentionally, knowingly, or otherwise) by any person or entity which previously owned or controlled what is now SURF or any part thereof. Furthermore, the foregoing notwithstanding, Lessor is aware of the presence of asbestos in some of the areas making the Leased Site and the Easement.

5.2.3 No portion of the Leased Site is being used for the handling, processing, storage or disposal of Hazardous Waste or Hazardous Substances, and no underground storage receptacle for Hazardous Waste or Hazardous Substances is located on the Leased Site. Lessor has not generated, is not generating, and has not permitted to be generated, any Hazardous Waste or Hazardous Substances on the Leased Site. There have been no known releases past or present of Hazardous Waste or Hazardous Substances by Lessor. This includes, but is not limited to releasing, spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, disposing or dumping. Lessee acknowledges and agrees the prior owner of the Leased Site and Easement operated a commercial gold mine upon and around said property.

5.3 Warranty of Quiet Enjoyment: Lessor warrants and represents that, as of the date of execution of this Lease, Lessor has good right and full and marketable title, in fee simple, to the Leased Site, with full right to lease the Leased Site to Lessee for the purpose and uses stated in this Lease; provided, however that SURF is subject to a right to re-enter, take possession, and re-take title in favor of Homestake Mining Company of California, as provided in the Property Donation Agreement between and among Homestake Mining Company of California, the State of South Dakota, and Lessor dated April 24, 2006 (the "PDA"). Subject to the rights of Homestake Mining Company of California, Lessor further warrants and represents that Lessee, upon complying with and properly performing all covenants and conditions of this Lease, shall have and quietly enjoy the Leased Site for the full Term of this Lease. Lessor will take no action to prevent Lessee from having quiet and peaceable possession and enjoyment of the Leased Site during the term of this Lease.

5.4 Warranty Regarding Liens: Subject to the rights of Homestake Mining Company of California as set out in the PDA, Lessor warrants and represents that the leasehold estate granted to Lessee by this Lease shall be free from all liens, encumbrances, claims, penalties, restrictions and obligations of any nature whatsoever as of the date this Lease is executed. Lessor further warrants and represents:

5.4.1 Lessor's title to the Leased Site is free and clear, and will remain free and clear from all liens, encumbrances, claims, penalties, restrictions and obligations of any nature whatsoever.

5.4.2 During the Term of this Lease, Lessor will not take any action having the effect of altering Lessee's title to the Leased Site as warranted and represented in this Section.



5.5 **Indemnity:** It is expressly understood and agreed to by the parties hereto that Lessee, in executing this Lease, does so in reliance on the foregoing warranties and representations. The breach, falsity or invalidity of any one of them shall, at Lessee's option, be deemed a total breach of this Lease unless corrected or rectified within thirty (30) days after written notice thereof to Lessor.

5.5.1 Lessor agrees to defend, protect, indemnify and save harmless Lessee and its respective officers, employees and agents from any loss, claim, damage, liability, cost or expense, including attorney fees, arising out of the existence of any substance located on the Leased Site prior to the date this Lease is executed or after the date this Lease is terminated (in the latter case, to the extent such substance was not caused by Lessee).

5.5.2 Lessor agrees to defend, protect, indemnify and save harmless Lessee and its respective officers, employees and agents from any loss, claim, damage, liability, cost or expense, including attorney fees, arising out of the breach, falsity or invalidity of any one or more of the warranties and representations contained in this Section 5 and elsewhere in the Lease.

5.5.3 Lessor agrees this indemnity shall survive any termination of this Lease.

5.6 Lessor will provide reasonably necessary support to allow for safe access to SURF as provided herein including, but not limited to, infrastructure, power, ventilation and certain other consumables as described herein, and personnel to provide for ventilation, access to the Leased Site via the Yates Shaft and railroad, and coordination of dates and times for access to the Leased Site.

5.7 During the Term of this Lease, Lessor will cooperate in good faith with Lessee to carry out Lessor obligations as set out in the Lease.

5.8 Lessor will train Lessee personnel concerning the safe use of the surface and underground areas of SURF such that the Lessee personnel so trained may then train other Lessee personnel, licensees, and invitees.

5.9. In partial consideration for the Base Rent, Lessor shall provide to Lessee the following services and accommodations:

5.9.1. On-site personnel transportation to the Leased Site. Lessee employees or contractors may operate the underground railway if qualified so to do as determined by Lessor or after appropriate training by Lessor;

5.9.2. Support for the transportation of Lessee-owned equipment to the Leased Site;

5.9.3. Personal protective equipment that meets Lessor requirements for the work to be performed;

5.9.4. Appropriate office space (one to two offices) and related building accommodations above ground;



5.9.5. Internet access within the office space and Leased Site;

5.9.6. Access to any on-site medical services and other related support services; and

5.9.7. Storage for Lessee assets located in the Leased Site. Lessor will limit access to the Leased Site but is not otherwise responsible for the safety of or damage to any Lessee or third party-owned property. Lessee may establish its own reasonable safety measures to protect Lessee's or third-party owned property.

All of the services and accommodations to be provided by Lessor shall be consistent with the standard services and accommodations provided to other SURF users.

5.10. Lessor will permit Lessee to use Lessee and MineStar branding and marketing materials in the Leased Site so long as such materials are safe, tasteful, and include appropriate attribution to Lessor and SURF.

5.11. Lessor will permit Lessee to directly contract with third party companies to perform services for the benefit of Lessee within the Leased Site, provided those third parties are approved in writing by Lessor, which will require those third parties to be compliant and remain compliant with all Lessor safety, insurance, other risk mitigation requirements and Risk Transfer Protocols, a copy of which is attached hereto in Exhibits C-E. The services contemplated by this subsection include, but are not limited to, construction, infrastructure improvements, improvements to the Leased Site physical appearance, and the creation of the Lessee demonstrations. Lessor's initial determination concerning categories of risk and insurance limits that such third parties will fall is within risk category 4 and will be required to provide Commercial General Liability ("CGL") coverage with limits of no less than Five Million Dollars (\$5,000,000.00).

5.12. Lessor agrees and acknowledges that Lessee uses and may use lighting, loud music, video, virtual reality and other special effects in customer demonstrations, so long as they are safe and do not interfere with other SURF users.

5.13. Lessor will provide the following infrastructure to the Leased Site to make it suitable for Lessee's purposes: 1) provide covered structural steel protected train cars for use on the railroad to the Leased Site, including routine maintenance thereof; 2) provide electrical and internet service to the Leased Site (including the designated office space); 3) allow Lessee to provide for the safe storage of the Lessee equipment within the Leased Site when it is not in use at Lessee's sole expense; 4) removal of all asbestos in the Leased Site, including the designated office space; and 5) removal of the previous infrastructure in mutually agreed areas of the Leased Site and Easement area prior to the scheduled installation of the ground control improvements stated in Section 6.8.

5.14. Access to Leased Site. Subject to the terms and conditions of this Lease, Lessor shall allow scheduled visits by Lessee customers, subcontractors, suppliers and CatLab MineStar Consortium participants to work at, develop and attend technology demonstrations in the Leased Site.



- 5.15. Equipment provided by Lessee. Except as otherwise specifically provided herein, title to any equipment, software, hardware, sensors or Lessee Products provided to Lessor as part of this Lease will be retained by Lessee. Upon the expiration or termination of this Lease, Lessor will return all aforementioned items to Lessee in good working condition, normal wear and tear excepted; provided, however that Lessor shall retain ownership and use of the Minetec underground tracking system deployed in all locations underground.
- 5.16. Lessor acknowledges and agrees it will be responsible to pay all ongoing licenses, subscriptions, maintenance, and service fees for the Minetec systems that are installed in any areas at SURF, except those in the Leased Site.
- 5.17. Required Assignment of Rights. Lessor shall require all of its officers, employees, agents, students or contractors who become aware of, have access to, or participate in the activities covered by this Lease, including through the access of the Leased Site and designated office space, to disclose promptly to Lessee all inventions, whether or not patentable, conceived by such Lessor officers, employees, agents, students or contractors, or other individuals involved in the Lease. Lessor shall require all such Lessor officers, employees, agents, students or contractors, or other individuals who perform work under this Lease to execute an assignment of rights to any data or intellectual property or technology discovered or created pursuant to this Lease, prior to allowing any individual to become aware of, or participate in, the activities covered by this Lease. To the fullest extent permitted by applicable law, all such data, intellectual property and/or technology will be the confidential information of Lessee. Lessor agrees to promptly forward all such invention disclosures, in confidence, to Lessee.

6. **LESSEE WARRANTIES AND REPRESENTATIONS**

6.1 Warranty and Authority: Lessee warrants and represents that it is duly authorized to enter into this Lease and perform its duties and obligations hereunder.

6.2 Warranty of Fitness for Purpose and Environmental Matters: Lessee warrants and represents that the Leased Site shall be maintained in good condition, subject to Lessor providing the Leased Site to Lessee in good condition at the beginning of this Lease. Furthermore, Lessee hereby warrants and represents that:

6.2.1 Lessee shall obtain and maintain all permits required under Environmental Laws for the performance of the activities Lessee engages in on the Leased Site. To the extent necessary, Lessor shall cooperate with obtaining such permits. Lessee shall be solely responsible for its activities on the Leased Site, as well as for all reporting related to environmental matters of such activities.

6.2.2 Lessee shall conduct its operations so as to not be in violation of any judgment, decree, order, law, license, rule or other regulation issued under any applicable Environmental Laws (collectively, "Regulations") pertaining to the Leased Site. Lessor shall notify Lessee of any non-public Regulations at the beginning of this Lease, or promptly upon the issuance of such Regulation if the issuance occurs after the beginning of this Lease.



6.2.3 Lessee shall promptly notify Lessor should it receive notice that it has been identified by the United States Environmental Protection Agency as a potentially responsible party under CERCLA with respect to the Leased Site being listed on the National Priorities List under Environmental Laws.

6.2.4 No portion of the Leased Site shall be used as a Hazardous Waste treatment, storage, or disposal facility, and no underground storage receptacle for Hazardous Waste or Hazardous Substances shall be located on the Leased Site by Lessee.

6.2.5 To ensure that any discharge to Lessor's storm sewer system or wastewater treatment plant will not jeopardize Lessor's ability to comply with environmental permit limits, Lessee shall obtain Lessor's prior written approval for the use for any chemicals at the Leased Site except standard cleaning supplies of five (5) gallons or less. Lessor will act reasonably and in good faith when approving chemicals needed to operate and maintain vehicles used by Lessee at the Leased Site. Lessee shall further consult with Lessor before changing chemicals used at the Leased Site.

6.2.6 If any contamination of the Leased Site should occur due to Lessee's business activities there, Lessee shall remediate such contamination at its sole expense, as Lessee would be required to address pursuant to any Environmental Law and taking the requirements for the property of the use and character of the Leased Site into consideration to the extent such contamination was caused by Lessee. Lessee shall indemnify and hold Lessor, the State of South Dakota, and their officers, directors, employees, agents, and representatives and the Homestake Indemnified Parties (as that term is defined in the PDA) harmless from and against any loss, claim, damage, liability, cost or expense, including attorney fees, arising out of any such contamination.

6.3 Lessee shall comply with the applicable insurance and other provisions of Lessor's Risk Transfer Protocols, a copy of which is attached hereto in Exhibit C. For the purposes of this Lease, Lessee will be considered a "contractor" for any self-performed construction work and a "project sponsor" in its capacity as a technology demonstrator. Lessor's initial determination concerning categories of risk and insurance limits is that Lessee falls within risk category 4 and will be required to provide CGL coverage with limits of no less than Five Million Dollars (\$5,000,000.00).

6.4. Lessee and its contractors, subcontractors, licensees, and invitees must comply with all Lessor environmental, health, and safety requirements, which shall be provided to Lessee in written format prior to the execution of this Lease. All natural persons entering the underground must execute the Acknowledgment of Risk, and Release, Agreement Not to Sue, and Waiver forms appended to the Risk Transfer Protocols.

6.5. Lessee will, at Lessee's sole expense, provide Lessor with an initial order of Minetec technology equipment, and its installation and deployment for the agreed upon sections of the 4850 level and the Yates and Ross Shaft stations described on Exhibit B. For the purposes of clarity, after the initial installation by Lessee, Lessor will be responsible for paying for any and all ongoing licenses, subscriptions, operational, maintenance, and service fees for the Minetec system on the 4850 level and the Yates and Ross Shafts, and for any additional Minetec equipment orders for any other parts of SURF.



6.6. Lessee will purchase and install the Minetec equipment and pay all associated licenses, subscriptions, operational, maintenance, and service fees for the Minetec system in the Leased Site.

6.7. Lessee may provide certain equipment, software, hardware, sensors or other Lessee products for use by the Lessee at the Leased Site in connection with this Lease. Except for Minetec equipment as described herein, title to such equipment, software, hardware, sensors and other Lessee products will remain with Lessee, and may be removed from the Leased Site by Lessee upon the expiration or termination of this Lease.

6.8 Lessee will install industry standard ground support, consisting of wire mesh and rock bolting similar to what is currently in use at SURF, as reasonably necessary for the entirety of the Leased Site and underground Easement areas as shown on the attached Exhibit A.

6.9. At least thirty (30) days prior to commencing work on ground support or any leasehold improvements of any kind, Lessee will provide Lessor with a written preliminary decommissioning plan, which plan must be reviewed and approved by Lessor (acting reasonably) before Lessee may commence work. The preliminary decommissioning plan must address (at Lessee's sole expense) the removal, remediation, or transfer of title to Lessor of any leasehold improvements (except the ground support described herein, which shall become the property of Lessor upon installation), as well as the removal, remediation, or transfer of title of any other personal property and the remediation of any hazardous materials of any kind or nature, subject to Section 6.2.6.

7. INTELLECTUAL PROPERTY

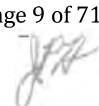
7.1. Intellectual Property Definitions

7.1.1 "**Arising Technology**" means Technology that is not Background Technology and that is first conceived, reduced to practice, created, or developed, either singly or jointly by the Parties, or by Persons retained by a Party or both Parties, under a Program Description.

7.1.2 "**Background Intellectual Property**" means Intellectual Property that is now or hereafter owned by a Party or to which a Party now or hereafter holds rights and that covers Background Technology.

7.1.3 "**Background Technology**" means all Technology owned or developed (i) prior to the Agreement, or (ii) outside any Program Description performed under this Agreement. For avoidance of doubt, Background Technology does not include Arising Technology.

7.1.4 "**Caterpillar Field of Use**" means the following industries: (i) energy, power, and transportation systems and related systems and solutions in oil and gas, power generation, marine, railroad and industrial applications, including reciprocating engines, generator sets, marine propulsion and control systems, well-service pressure-pumping products, industrial turbines and turbine-related services, railway locomotives and other rail-related products and services; (ii) machinery for road, building, and other infrastructure construction applications, including loaders, tractors, excavators, graders,



pavers, mills, pipe layers, vocational trucks and the like; (iii) machinery used in mining, quarrying, forestry, other natural resource extraction or harvesting, industrial material handling, and waste handling and management applications, including mining trucks, underground mining equipment, shovels, drills, scrapers, conveyor systems, and the like; (iv) components, sub-systems, work tools, and attachments for (i), (ii) and (iii); and (v) equipment management, productivity management, safety management, and sustainability management and solutions for (i), (ii), and (iii).

7.1.5 **"CatLabs MineStar™ Consortium"** means an informal, unofficial group of one or more companies and universities interested in the development of mining technology and autonomous technology for mining (and other industrial) applications.

7.1.6 **"Caterpillar Products"** means software, engines, generator sets, industrial and heavy equipment (including, but not limited to, construction, mining, paving, railroad, and forestry machines and equipment), autonomy and autonomous based equipment and systems, and related products, components, and services that relate to the Caterpillar Field of Use.

7.1.7 **"Intellectual Property"** or **"IP"** mean patents, copyrights, and all other forms of statutory or common-law intellectual property protection, excluding trademarks, service marks, and other corporate designations, identifiers or logos.

7.1.8 **"Party"** or **"Parties"** means Lessor and/or Lessee.

7.1.9 **"Project"** means product development and promotional activities conducted by Lessee at SURF.

7.1.10 **"Software"** means any Lessee-provided software and any related mobile applications, software downloads, support services, implementation services, and Application Programming Interfaces, together with all content and data to the extent made available through any of the foregoing.

7.1.11 **"Technology"** means conceptions, creations, ideas, innovations, discoveries, inventions, compositions, methods, trade secrets, know-how, information, data, works of authorship, and results, whether or not patentable, copyrightable, or susceptible to any other form of statutory or common law legal protection.

7.2 **Reservation of Rights.** Lessee is NOT granting any rights or licenses, whether express or implied, under Lessee's Intellectual Property or Lessee's Technology. All Intellectual Property and Technology created or discovered pursuant to this Lease is solely owned by Lessee, and Lessee has no obligation to provide Lessee confidential information about the project and activities performed at the Leased Site to Lessor except to the extent they may affect the health or safety of occupants of SURF. Neither Lessor nor its officers, directors, employees or agents shall have any ownership or license rights in any of the newly created Intellectual Property and Technology created under this Lease.

7.3 **Lessor Product Use.** References in this Agreement to the "provision", "use", "purchase" or "sale" of Caterpillar Products refer to the licenses to access and use the Caterpillar Products hereunder.

Caterpillar File: CRG-20-02480
Caterpillar Doc #7657481v20
Execution Version

Caterpillar: Confidential Green

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Except as otherwise provided herein, nothing in the Agreement will be deemed to grant Lessor or its officers, directors, employees, or agents an ownership interest in any of the Caterpillar Products.

- 7.4 **Lessor Background Intellectual Property and Technology Rights.** Lessor retains all its right, title and interest (including intellectual property rights) in and to any Intellectual Property or Technology created by Lessor (i) before this Lease went into effect, and (ii) outside the activities under this Lease, provided that it was not created in connection with the Lease and was created without use of or access to the Caterpillar Products, Lessee Intellectual Property, Lessee Technology or Lessee confidential information.
- 7.5 **Prohibition of Use of Lessee Background Intellectual Property.** Lessor shall not use Lessee Background Intellectual Property or Lessee Background Technology for any reason. If any Lessor Background Intellectual Property or Lessor Background Technology is provided by Lessor to Lessee for use or incorporation into software or a product, Lessor hereby grants to Lessee a fully-paid up, royalty-free, non-exclusive, perpetual, irrevocable, non-terminable, transferable, worldwide right and license (including the right to grant and authorize sublicenses through multiple levels) to such Lessor Background Intellectual Property and Lessor Background Technology for any and all purposes and in any and all media.
- 7.6 **Software Rights.** Lessee, its Affiliates and each of their respective licensors and suppliers retain all of their respective right, title and interest in and to the Software and all Intellectual Property and Technology rights in or pertaining to the Software or its use ("Software Background IP"). Examples of Software Background IP include, but are not limited to, the design, structure, selection, coordination, expression, "look and feel" and arrangement of the Software and all processes, tools, software, technology, confidential information and trade secrets pertaining to the Software, together with any custom developments created or provided in connection with or related to this Agreement. Neither Lessor nor any Lessor employee shall have any right to, and will not, create any modifications, extensions, or derivatives (including derivative works) of any of the Software Background IP nor to derive any technology from Software Background IP (such modifications, extensions, derivatives (including derivative works) and technology, collectively "Derivatives"). Lessor agrees neither it nor its employees will create any Derivatives. If any Derivatives are created, notwithstanding the restrictions set forth above, Lessor and Lessor employees do hereby assign to Lessee irrevocably and without further consideration, all right, title and interest in and to such Derivatives and all Intellectual Property and Technology rights pertaining thereto in the United States and in any other country. Except to the extent prohibited by applicable Laws, if and to the extent that any Derivatives or any intellectual property rights pertaining thereto are not so assignable by Lessor or Lessor employees to Lessee, Lessor and its employees will and hereby do grant to Lessee a fully-paid up, royalty-free, unrestricted, perpetual, irrevocable, non-terminable, transferable, worldwide, exclusive license (including the right to grant and authorize sublicenses through multiple levels) to any Derivatives and all Intellectual Property and Technology rights pertaining thereto for any and all purposes and in any and all media.
- 7.7 Lessor will not try to gain access to any Lessee networks (including networks on Lessee's equipment), Lessee confidential information, or Lessee Intellectual Property or Technology (including Software). Lessor will not attempt to reverse engineer, decompile, disassemble, modify or create derivative works of any Lessee Software.



- 7.8 Nothing in the Agreement will in any way limit or otherwise affect the use by Lessor and Lessor employees of commercial software licenses purchased by Lessor or provided to Lessor by third parties, nor shall it grant Lessee any right, title, interest in, or license to any such software or to any software developed by Lessor other than any software developed specifically for the project described herein.
- 7.9 **Feedback.** If Lessor or any of its employee provide any ideas, proposals, suggestions or other materials ("Feedback"), whether related to the Lessee Intellectual Property, Lessee Technology, Software, or other Caterpillar Products, Lessor and Lessor employees hereby acknowledge and agree that such Feedback is not confidential, and that the provision of such Feedback is gratuitous, unsolicited and without restriction, and does not place Lessee under any fiduciary or other obligation. Lessor and Lessor employees agree Lessee does not control and is not responsible for any Feedback or the use or misuse (including any distribution) by any third party of Feedback. In addition, by submitting Feedback, Lessor and Lessor employees hereby grant to Lessee a fully-paid up, royalty-free, exclusive, perpetual, irrevocable, non-terminable, transferable, worldwide right and license (including the right to grant and authorize sublicenses through multiple levels) to such Feedback and all Intellectual Property and Technology rights pertaining thereto for any and all purposes and in any and all media, whether alone or together or as part of any material of any kind or nature, and Lessor and Lessor employees waives all moral and similar rights in connection therewith, and further to use, reproduce, distribute, make derivative works of, publicly perform, and publicly display Feedback.
- 7.10 Lessor hereby acknowledges and agrees Lessee will be developing and testing new mining technology for the Lessee Field of Use and intends to commercially sell the newly developed technology, and Lessor expressly disclaims any ownership or compensation for the new technologies.
- 7.11 Anything elsewhere herein to the contrary notwithstanding, Lessee acknowledges that Lessor has informed Lessee to the following:
- (a). Lessor is a body corporate and politic, created by the South Dakota Legislature, and made subject to the open meetings and open records laws of the State of South Dakota. See, e.g., SDCL Ch. 1-25 and Ch. 1-27.
- (b). SURF is hosting and will in the future host scientific, engineering, and technological experiments and demonstrations owned or sponsored by persons and entities other than Lessee. Some of those scientific, engineering, and technological experiments and demonstrations are funded by governmental entities, including but not limited to the United States Department of Energy ("DOE") and the National Science Foundation. Except as specifically provided by applicable law, Lessor does not have any ownership of, or control over, the intellectual property rights of said users, their employees, or the agencies funding their experiments and demonstrations; accordingly, the restrictions and other provisions of the Agreement relating to the ownership and use of such property rights of such users and their employees will not be subject to the Agreement.



- 7.12 Anything in any term or provision of the Agreement to the contrary notwithstanding, the intellectual property and related provisions of the Agreement shall be subject to the applicable provisions of 2 CFR 200.315, 2 CFR 910.362, 37 CFR 401.1, et. seq., and other applicable law.
- 7.13 **Intellectual Property Commercialization.** Lessee, in its sole discretion, has the exclusive right to commercialize any technology, products or improvements thereto resulting from the Lease.

8. **INDEMNIFICATION**

8.1 By Lessor. Lessor hereby agrees to defend, indemnify and hold harmless Lessee, its officers, employees and agents, guests, licensees or invitees from and against all claims and demands of any nature related to this Agreement whatsoever, arising out of the injury to or death of any person or damage to property, except to the extent caused by the acts or omissions of Lessee, its employees, agents, guests, licensees or invitees during the Term of this Lease.

This indemnity and hold harmless agreement shall include indemnity against all reasonable costs, expenses and liabilities incurred in or in connection with any such claim or proceeding brought thereon, the reasonable expense of investigating the same and the defense thereof

8.2 By Lessee. Lessee hereby agrees to defend, indemnify and hold harmless Lessor, its officers, employees and agents, guests, licensees or invitees from and against all claims and demands of any nature related to this Agreement whatsoever, arising out of the injury to or death of any person or damage to property, except to the extent caused by the acts or omissions of Lessor, its employees, agents, guests, licensees or invitees during the Term of this Lease.

This indemnity and hold harmless agreement shall include indemnity against all reasonable costs, expenses and liabilities incurred in or in connection with any such claim or proceeding brought thereon, the reasonable expense of investigating the same and the defense thereof

9. **ENCUMBRANCES**

Except as otherwise provided in the PDA with respect to Lessor, during the Term of this Lease, neither party shall encumber, in any manner whatsoever, all or any portion of the other party's interest in this Lease, or in the land constituting the Leased Site, without the other party's prior written consent.

10. **FURTHER ASSURANCES**

If either Lessor or Lessee reasonably determines or is reasonably advised that further instruments or any other things are necessary or desirable to carry out the terms of this Lease, the other party will execute and deliver all such instruments and assurances and do all things reasonably necessary and proper to carry out the terms of this Lease.

11. **RECORDING**

A memorandum of lease reflecting the terms and conditions of this Lease may be recorded at any time upon or following execution of this Lease. Lessee shall pay all costs of recording, including any recording taxes.



12. **REAL PROPERTY TAXES AND OTHER MATTERS**

Any property taxes and assessments levied or assessed solely against the Leased Site and the improvements thereon by a governmental authority, including any special assessments imposed on or against said Leased Site for the construction or improvements in, on, or about the Leased Site during the Term of this Agreement, shall be the responsibility of Lessee and paid by Lessee before they become delinquent; provided, however that the Base Rent shall be reduced on a Dollar-for-Dollar basis for each Dollar paid by Lessee for property taxes and assessments, but such yearly reduction shall not exceed Thirty Thousand Dollars (\$30,000.00) USD. If the property taxes and assessments for any tax year exceed Fifty Thousand (50,000.00) USD, Lessee may terminate this Lease for convenience upon ninety (90) days written notice to Lessor. In that event, Lessee will remain liable for property taxes and assessments for all tax years or any part thereof during which this Lease was in effect, Base Rent shall be prorated to the effective date of termination, and the ground support and Minetec equipment provided by Lessee hereunder prior to the effective date of termination shall remain the property of Lessor without any further compensation therefor from Lessor.

13. **INTENTIONALLY OMITTED**

14. **NOTICES.** All notices and demands to be given by one party to the other party under this Lease shall be given in writing, mailed or delivered to Lessor or Lessee, as the case may be, at the following address:

If to Lessor:

South Dakota Science and Technology Authority
Attn: Mr. Michael Headley
630 East Summit Street
Lead, SD 57754
Email: mheadley@sanfordlab.org

With a copy to:

May, Adam, Gerdes & Thompson LLP
Attn: Mr. Timothy Engel
503 S. Pierre Street
P.O. Box 160
Pierre, SD 57501
Email: tme@mayadam.net

If to Lessee:

Caterpillar Global Mining LLC
Attn: Mr. Sean McGinnis
901 West Washington Street
East Peoria, IL 61630
Email: McGinnis_Sean_C@cat.com



With a copy to:

Caterpillar Inc.
Attn: Real Estate Manager
100 N.E. Adams Street
Peoria, Illinois 61629-4260
Email: Caterpillar_Real_Estate@cat.com

And a copy to:

Caterpillar Inc.
Attn: Deputy General Counsel, Finance & Governance
510 Lake Cook Road, Suite 100
Deerfield, Illinois 60015

or at such other address as either party may hereafter designate. Notices shall be delivered by hand or by United States certified or registered mail, postage prepaid, return receipt requested, or by a nationally recognized overnight air courier service. Notices shall be considered to have been given upon the earlier to occur of (i) actual receipt, or upon delivery (if delivered by hand) on one (1) business day after depositing with a nationally recognized overnight courier, or two (2) business days after posting in the United States via certified or registered mail.

All billing notices should be sent to: Caterpillar_Real_Estate@cat.com.

15. OWNERSHIP OF PROPERTY

Except as otherwise specifically provided herein, all machinery, equipment, structures, fixtures and other improvements and items placed on the Leased Site by Lessee shall at all times be and remain the property of Lessee. Such improvements may be removed by Lessee at any time and from time to time; provided, however, that Lessor shall be given at least thirty (30) days' notice of such removal. If Lessor, acting in good faith, determines that such removal (limited to only those items which would require disassembly and Lessor's assistance to remove) would adversely affect Lessor's ability to operate the Leased Site, then Lessee shall not make such removal.

16. COVENANTS TO RUN WITH LAND

The parties hereto intend that each and every covenant contained herein shall be appurtenant to and run with the land generally described herein as the Leased Site.

17. DATA PRIVACY

During the Lease negotiation process, Lessee may collect contact information. Any contact information collected may be used for Lessee's property management activities and is stored in a secure database. This could include name, address, phone, email and other pertinent information that Lessor has provided. For more information about Lessee's Data Privacy Statement, go to: <http://www.caterpillar.com/dataprivacy>.



18. **CONFIDENTIALITY**

Neither party shall make any public announcements regarding Lessee, the Leased Site, or the CatLab MineStar Consortium without prior written approval from the other party, which approval may be subject to internal approval processes.

IN WITNESS WHEREOF, each of the parties hereto has caused this Lease to be duly executed as of the day and year first above written.

Lessor:
**SOUTH DAKOTA SCIENCE AND
TECHNOLOGY AUTHORITY**

Lessee:
CATERPILLAR GLOBAL MINING LLC

By: _____

By: _____

Print Name: _____

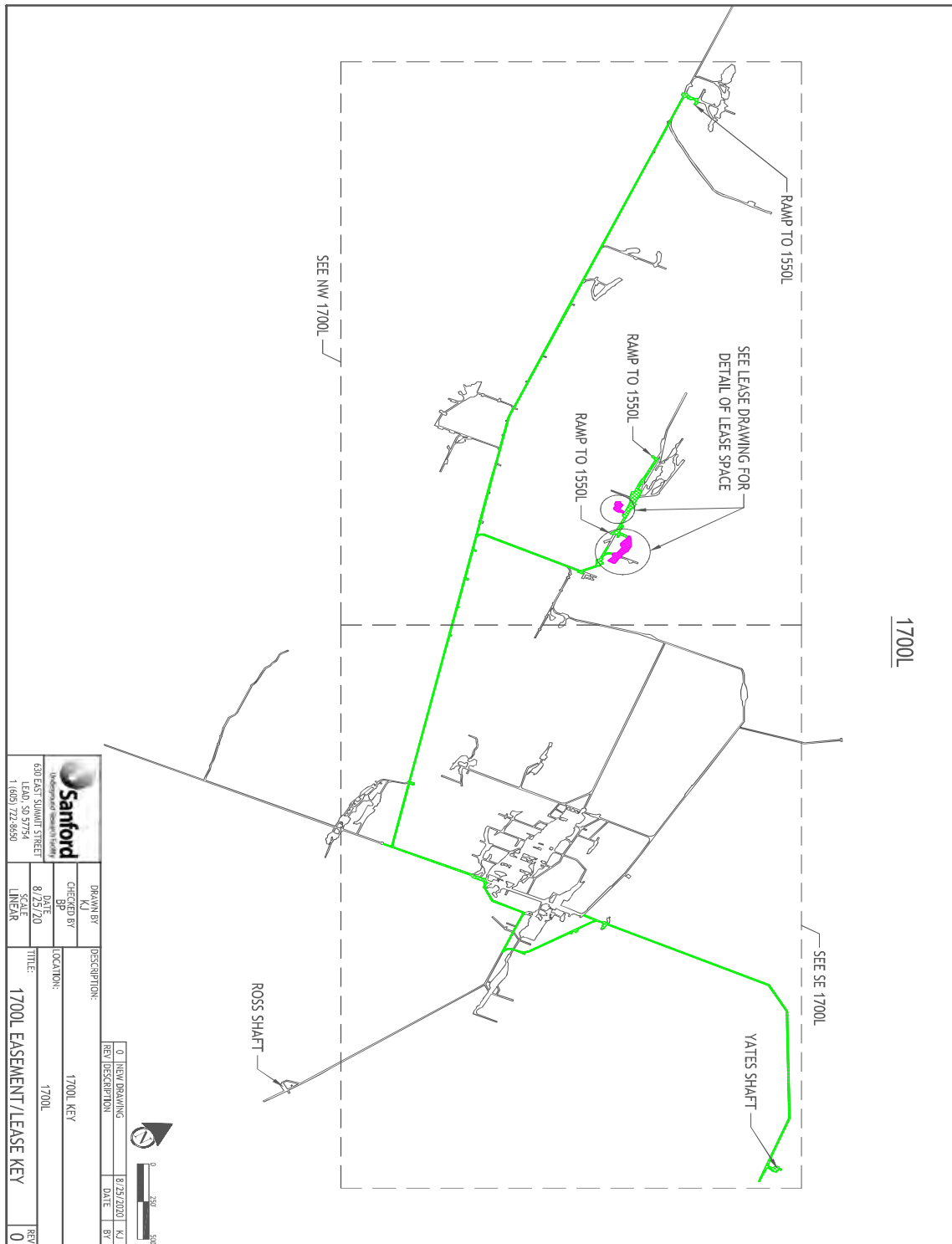
Print Name: _____

Title: _____

Title: _____



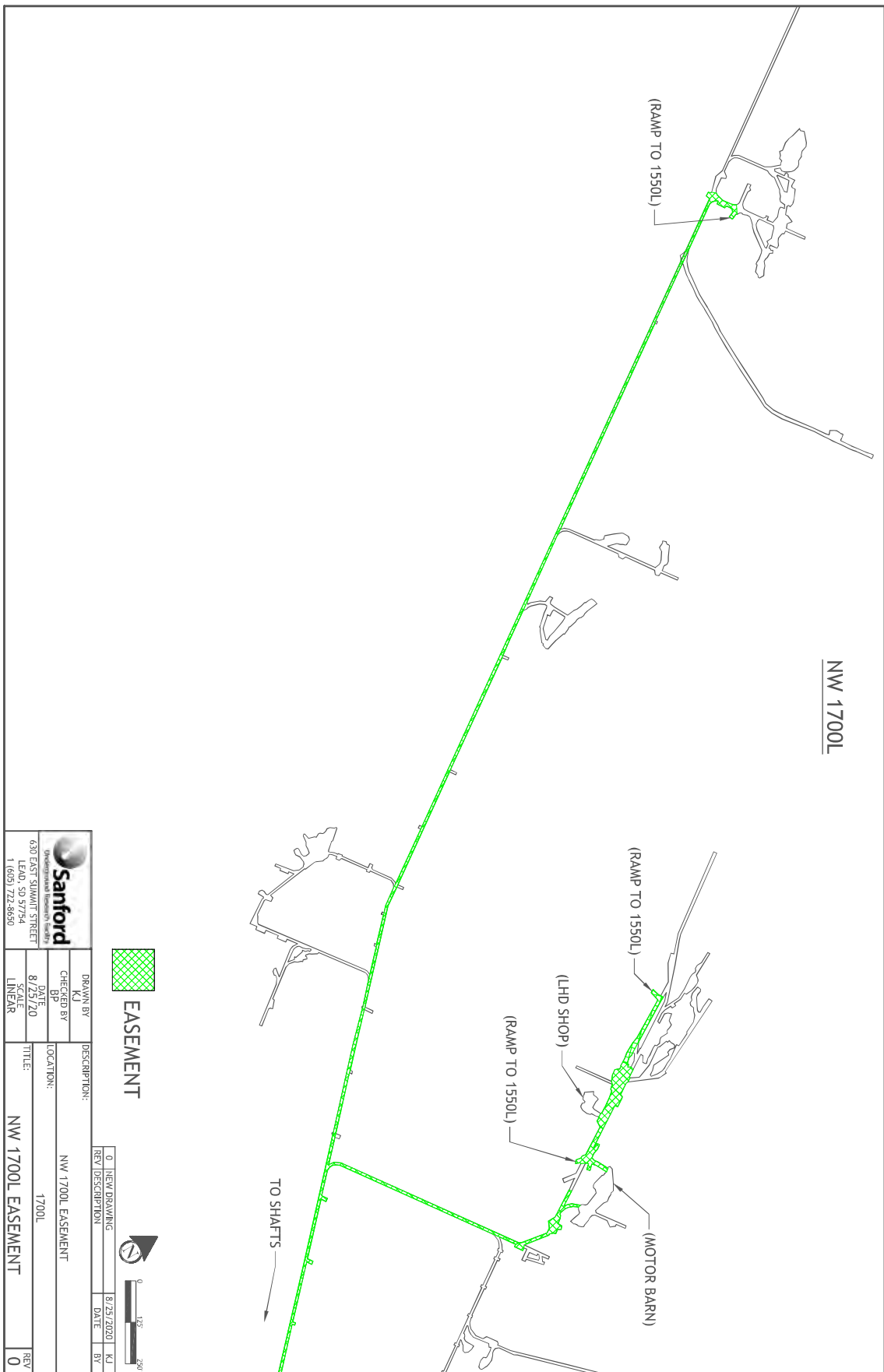
EXHIBIT A
Legal Description, Drawing of Leased Site, and
Drawing of Easement
 (6 Pages)



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 Caterpillar Doc #7657481v20
 Execution Version

Caterpillar: Confidential Green

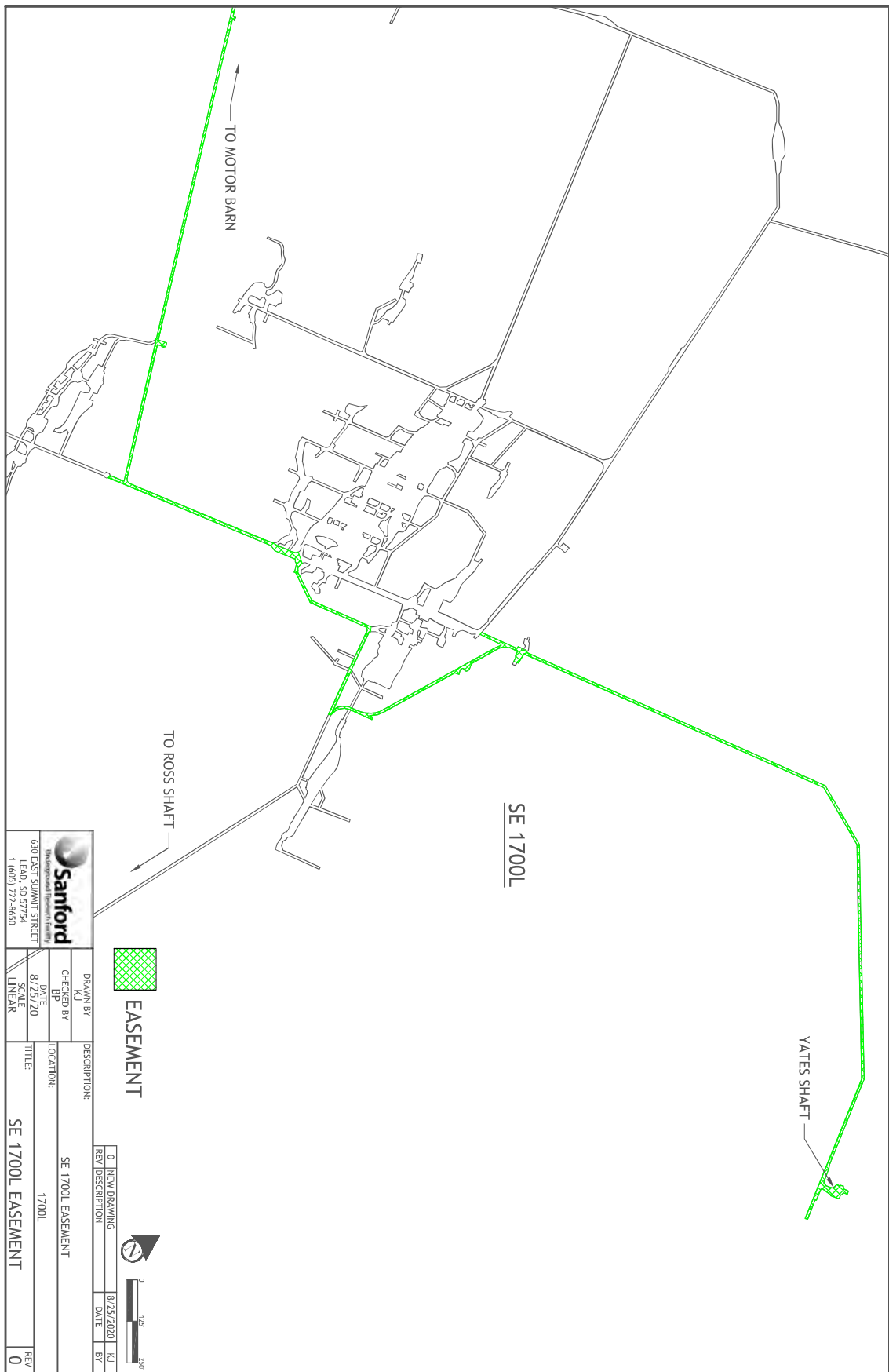
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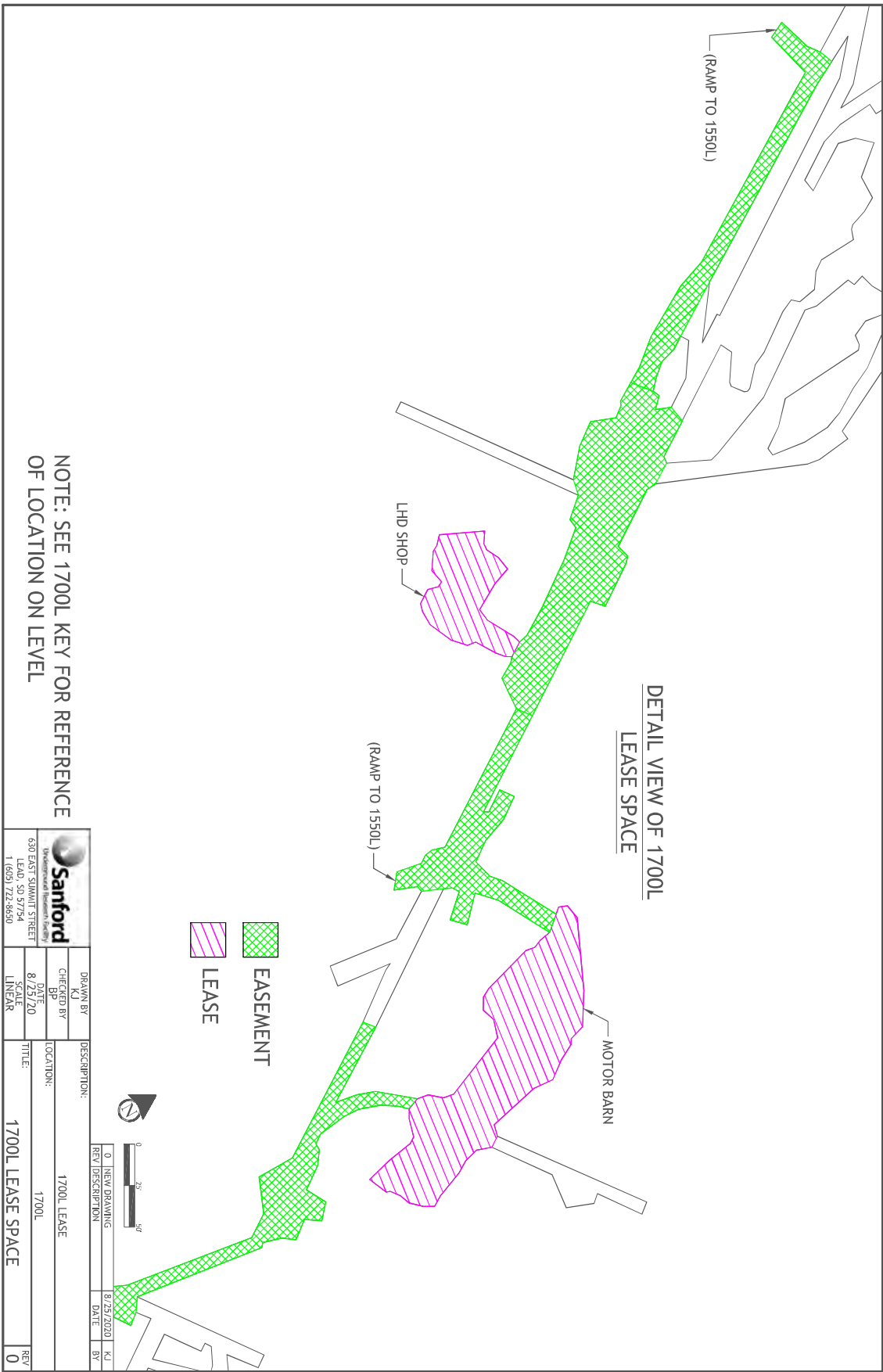


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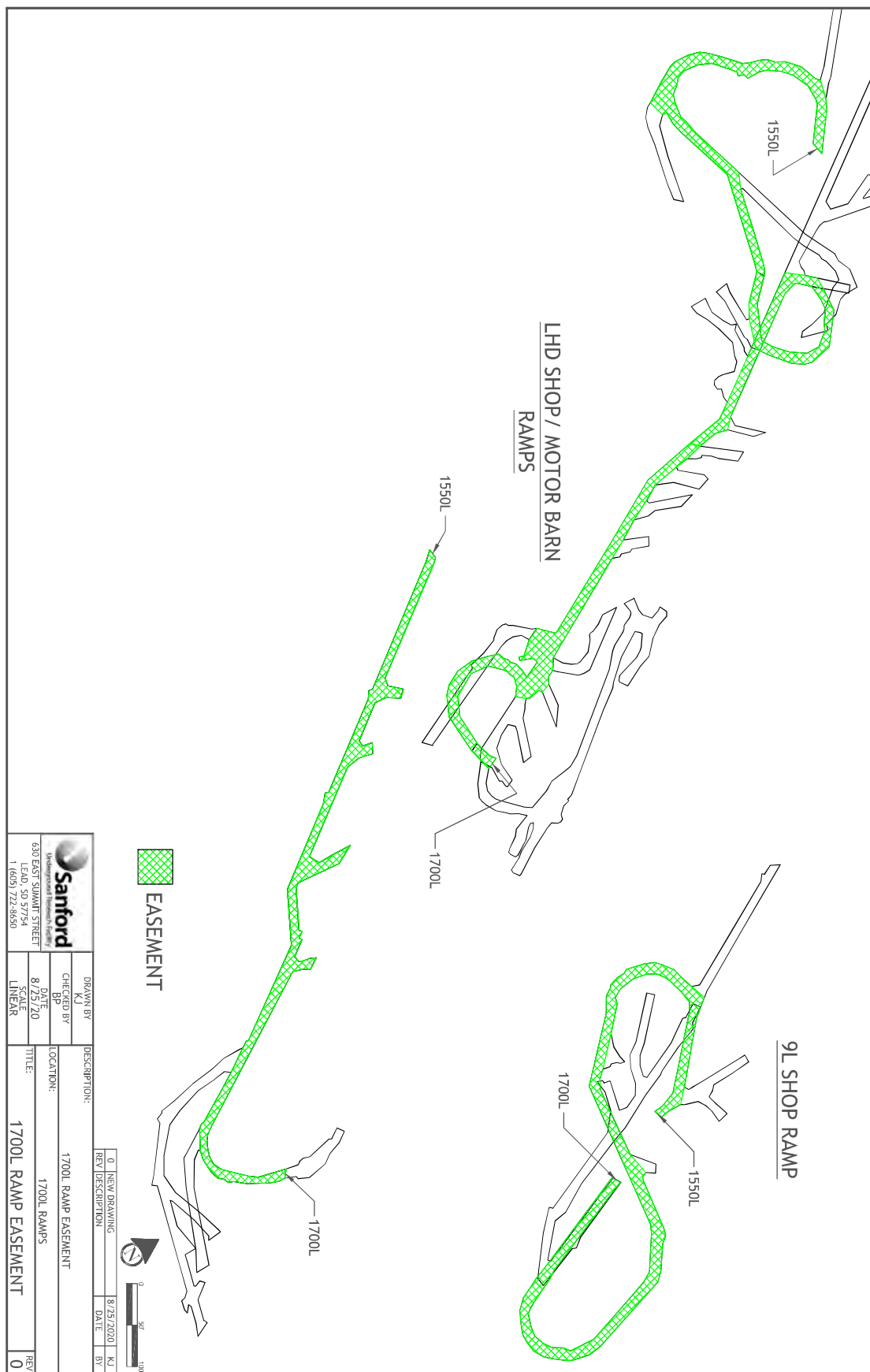
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NOTE: SEE 1700L KEY FOR REFERENCE
OF LOCATION ON LEVEL



Caterpillar File: CRG-20-02480
Caterpillar Doc #7657481v20
Execution Version

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J. J.

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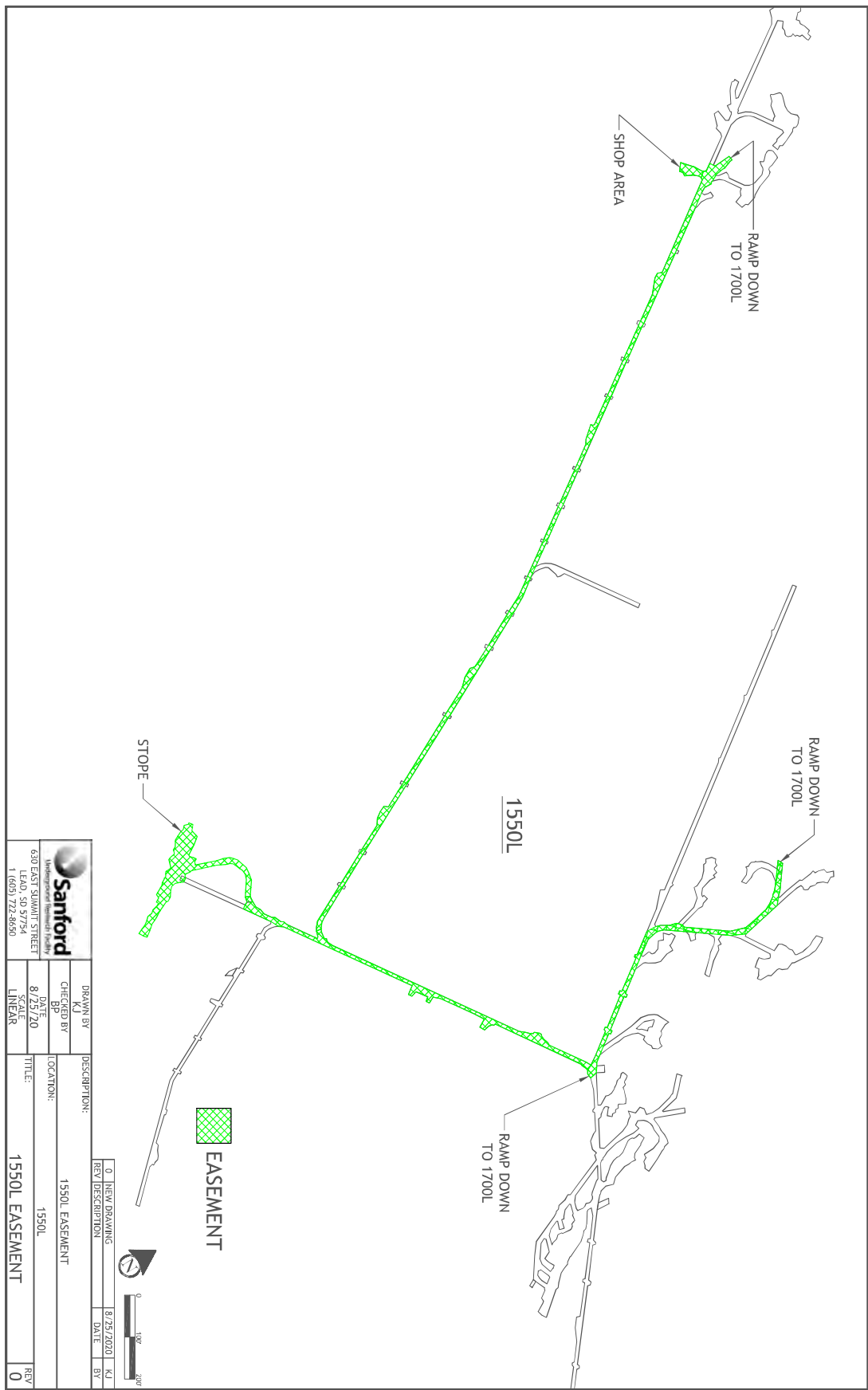


EXHIBIT B

Yates and Ross Shaft Stations

Ross Shaft
Level
Tramway
300
800
1250
1550
1700
2000
2300
2450
2600
2900
3200
3350
3500
3650
3800
3950
4100
4250
4550
4700
4850
5000

Yates Shaft
Level
Tramway
800
1100
1700
2300
2900
3500
3650
3800
3950
4100
4850



EXHIBIT C

**Lessor's Risk Transfer Protocols
(41 Pages)**

**Risk Transfer Protocols
for Contractors and
Project Sponsors
(Revised June, 2016)**

A handwritten signature in black ink, appearing to be "J. R. R.", is located in the bottom right corner of the page.

Table of Contents

- I. Risk Transfer Protocols for Contractors and Project Sponsors
 - Purpose
 - Scope
 - Responsibilities
 - Audit
 - Document Retention
 - Changers to Protocols
- II. Contractual Provisions
- III. Insurance Requirements
- IV. Risk Transfer in Lieu or in Conjunction with Commercial Insurance
- V. Evidence of Contractor or Project Sponsor Compliance

Appendix A – Property Donation Agreement 6.10 (b) and 6.10 (d)

Appendix B – Acknowledgement of Risk

Appendix C – Release Agreement Not to Sue and Waiver

Appendix D – Sample Certification of Insurance – Evidencing – Category 2

Appendix E – Sample Certification of Insurance – Evidencing – Category 3

Appendix F – Sample Certification of Insurance – Evidencing – Category 4

Appendix G – Risk Transfer Work Flow Diagram

Appendix H – Risk Management Diagram

Appendix I – Supplementary Policy Guidance and Certificate of Insurance Review Checklist

Risk Transfer Procedure for
Contractors and Project Sponsors Contracts

I. GENERAL

A. Purpose. These Protocols are intended to:

1. Establish a systematic risk management procedure for the South Dakota Science and Technology Authority (the "Authority").
2. Establish a written risk management plan that includes, among other things: (a) general categories of Contractors and Project Sponsors organized by level of risk, (b) types of coverage and limits of liability to be required for each category, (c) criterion used to determine whether the Homestake Indemnified Parties must be named as additional insureds on commercial insurance policies required of Contractors and Project Sponsors and (d) criterion used to determine whether a retained risk plan, pool or other form of "self-insurance" is acceptable in combination with or in lieu of commercial insurance.
3. Ensure all Contractors and Project Sponsors and its or their Representatives provide insurance in compliance with the terms of the Property Donation Agreement ("PDA"), as amended between and among Homestake Mining Company of California, the State of South Dakota and the Authority.

B. Scope. These protocols are applicable to all Contractors and Project Sponsors and its or their Representatives.

C. Protocol Structure. The Authority's risk transfer program consists of two components: contractual provisions and insurance requirements. The contractual provisions are described below in Section II. The insurance requirements are described below in Section III.

D. Definitions.

1. Except as otherwise provided in this document, the term "Contractor," as used in these protocols, means any natural person or legal entity that contracts with the Authority or a Project Sponsor to perform any work in connection with, on, or about any of the Authority's property and includes all direct or indirect subcontractors or consultants of such natural person or legal entity.
2. Other terms are defined throughout this document when first used. Defined terms used in this document but not defined herein are defined in the PDA, as amended.

E. The Risk Manager. The Authority shall at all times employ a qualified internal Risk Manager.

F. Responsibilities.

1. The Executive Director will ensure that all requirements of the PDA, as amended, are met. The Executive Director will ensure compliance by allocating resources and delegating responsibility concerning contract review to the Risk Manager.

2. The Risk Manager will be responsible for categorizing all Contractors and Project Sponsors and its or their Representatives by appropriate level of risk.
3. The Risk Manager is responsible for the development of a risk management program that includes decision making tools, standardized categorization parameters to be used to determine types of coverage, limits of liability and whether a retained risk plan, pool or other form of "self-insurance" is acceptable.
4. The Risk Manager ensures the proper contract language is applied and inserted within each contract on a case-by-case basis.
5. An independent risk management consultant (the "Risk Management Consultant") retained by the Authority will upon request review the Risk Manager's determinations concerning types and amounts of coverage required of "Increased Risk" Contractors and Project Sponsors and will periodically review the Risk Manager's determinations concerning the level of risk assigned to particular Contractors and Project Sponsors. The Risk Management Consultant will be identified and retained by the Executive Director, in consultation with the Authority's general counsel.
6. The Risk Manager shall have the separate and independent duty and ability to report directly to general counsel for the Authority.

G. Document Retention.

1. The Authority shall retain copies of all Contracts, Memoranda of Understanding or other Agreements with Contractors and Project Sponsors, insurance certificates and policies for a minimum of seven (7) years after final completion or final decommissioning.
2. Anything in this document to the contrary notwithstanding, the Authority shall at all times comply with the document retention provisions of PDA section 6.10 (c).

H. Inclusion in Contracts and Memoranda of Understanding. In all projects (whether conducted by the Authority or a Project Sponsor) involving competitive bids, the insurance and other requirements set out in this document will be provided to each interested Contractor prior to bid submission. Prior to final execution of a contract with a Contractor or a Memorandum of Understanding or other agreement with a Project Sponsor, the Risk Manager will verify the contract or memorandum contains the appropriate indemnification and insurance requirement language to ensure the requirements of this document have been met.

I. Changes to Protocols.

1. The Risk Manager makes minor changes for work flow and integration.
2. The Risk Manager delegates responsibilities for formatting, version numbers, document control and grammatical changes.
3. The Risk Manager notifies the Executive Director of the need for major conceptual changes.

4. Major changes require the review and approval of the Authority's general counsel and the Board of Directors, and must thereafter be submitted to Homestake.

II. CONTRACTUAL PROVISIONS

- A. Standard Clauses. The following standard clause on Indemnification will be included in all contracts, Memoranda of Understanding or other agreements between the Authority and Contractors or Project Sponsors, between Project Sponsors and their Contractors and between subcontractors and consultants and their general contractors. The following standard clauses relating to the Acknowledgement of Risk and the Release and Agreement Not to Sue and Waiver will be included in all contracts, Memoranda of Understanding or other agreements between the Authority and Contractors or Project Sponsors, between Project Sponsors and their Contractors and between subcontractors and consultants and their general contractors when the Underground Property is entered or the work or activities directly relate to the Underground Property.
 1. Indemnification. This provision requires the Contractor to assume liability for, and defend the Authority against, losses arising from the Contractor's negligence or intentional acts and the negligence or intentional acts of its Representatives. The Authority's standard indemnification clause is shown in Appendix A.
 2. Acknowledgment of Risk. Under this provision, Contractors and Project Sponsors are advised that all natural persons who enter the Underground Property are required to declare that they have investigated and been advised on the risks associated with going underground. The required form of Acknowledgment of Risk, as amended, is shown in Appendix B.
 3. Release, Agreement Not to Sue and Waiver (the "Release"). Under this provision, Contractors and Project Sponsors are advised that all natural persons who enter or conduct work or activities directly related to the Underground Property must agree to release, discharge and not sue the Homestake Indemnified Parties, the Authority, the State of South Dakota and their officers and employees from and against any and all actions, suits, damages, liability or other proceedings. The required form of Release, Agreement Not to Sue and Waiver, as amended, is shown in Appendix C.
- B. Natural Persons entering the Underground Property. Except for representatives of regulatory authorities with jurisdiction over the Underground Property, all natural persons entering the Underground Property for any reason or under any authority must execute the Acknowledgement of Risk and the Release, Agreement Not to Sue and Waiver prior to entering the Underground Property. Except for representatives of regulatory authorities as noted above, this requirement applies to all elected officials, officers, agents and employees of the Authority, the State of South Dakota, the United States and all other governmental entities.
- C. Waivers. Waivers of the requirement for execution of the standard indemnification clause may be waived by the Executive Director, in consultation with the Authority's legal counsel. Execution of the Acknowledgment of Risk and of the Release, Agreement Not to Sue and Waiver are required by the PDA and may only be waived by the Executive Director, in consultation with the Authority's legal counsel and with Homestake's written consent. The PDA requires Homestake's approval of the forms of the Acknowledgment of Risk and the

Release, Agreement Not to Sue and Waiver; accordingly, no changes may be made to those forms without Homestake's written consent.

III. INSURANCE REQUIREMENTS

- A. Overview. These guidelines establish four (4) broad categories of Contractors and Project Sponsors, based on the nature and extent of their activities on Authority property. The categories are "Negligible Risk," "Low Risk," "Intermediate Risk" and "Increased Risk." The following subsections set out the criteria for classifying Contractors and Project Sponsors and the insurance requirements for each, as well as establishing criteria for requiring certain supplemental forms of coverage and determining when the Homestake Indemnified Parties must be included as additional insureds. The insurance requirements of this document apply not only to Contractors contracting with the Authority, but also Contractors contracting with Project Sponsors for work in, on or related to, Authority property.
- B. Determination of Categories and Required Coverages. The Risk Manager shall in the first instance assign categories of risk and determine types and levels of coverage.
- C. Categories of Risk.
1. Category One ("Negligible Risk"). Contractors and Project Sponsors whose activities present a negligible risk of property damage and bodily injury. Examples of these types of activities include:
 - a. Onsite classroom training.
 - b. Mail or small parcel delivery (e.g., FedEx or UPS).
 - c. Lunch delivery.
 - d. Office equipment repair and maintenance.
 - e. Project Sponsor arrives to select location to collect a sample.
 2. Category Two ("Low Risk"). All Contractors and Project Sponsors not included in Categories One, Three or Four and that will be working on the surface only, except the following:
 - a. Any Contractor or Project Sponsor that at any one time will have ten (10) or more employees present on Authority property.
 - b. A Contractor or Project Sponsor using heavy construction equipment and with a total contract amount exceeding \$20,000.

Examples of "low risk" Contractors or Project Sponsors are as follows:

- a. Contractor working on water treatment plant modifications.
 - b. Project Sponsor that has graduate students assisting in biological surface surveys.
3. Category Three ("Intermediate Risk"). All Contractors and Project Sponsors doing work or with a presence on the Surface Property that are not included in categories One, Two or Four, in addition to all Contractors and Project Sponsors doing work in or with a presence in the Underground Property that are not included in category Four. Examples

of Contractor or Project Sponsor activities that may be appropriate for this category include the following:

- a. Structural work on the Surface Property.
 - b. Use of heavy equipment on the Surface Property.
 - c. Infrastructure work on the Surface Property.
 - d. Transportation on the Surface Property.
 - e. Presence of 10-19 Contractor employees onsite at any one time.
 - f. Work in buildings occupied by 20-49 persons or adjoining a building occupied by 20-49 persons.
 - g. Use of storage of suffocative or other hazardous materials on the Surface Property.
4. Category Four ("Increased Risk"). All Contractors and Project Sponsors doing work or with a presence on the Surface Property or in the Underground Property that are not included in categories One, Two or Three. Examples of Contractor or Project Sponsor activities that may be appropriate for this category include the following:
- a. Contractors or Project Sponsors conducting particularly hazardous activities, such as blasting or handling of hazardous materials.
 - b. Use of heavy equipment in the Underground Property.
 - c. Underground Property infrastructure work.
 - d. Underground Property transportation, including hoists and wenchers.
 - e. Work in buildings occupied by fifty or more people, or adjoining a building occupied by fifty or more people.
 - f. The presence onsite of twenty or more employees of the Contractor or its subcontractors and consultants.
 - g. Contracts or Projects with a value of \$5 million or more.
 - h. Installation or manipulation of high voltage infrastructure and related equipment.
 - i. Use of storage of suffocative or other hazardous materials in the Underground Property.

D. Standard Insurance Requirements.

1. Category One ("Negligible Risk"). No insurance is required unless special circumstances warrant otherwise.
2. Category Two ("Low Risk").
 - a. Minimum Insurance. Prior to commencement of work, the Contractor or Project Sponsor will procure and maintain the following insurance:
 - i. Commercial general liability insurance with limits of liability of not less than \$1 million per occurrence. Such insurance shall name as additional insureds the Authority and its officers, agents, employees and representatives; The Regents of the University of California, its officers, agents, employees and representatives; Fermi National Accelerator Laboratory, LLC, its officers, agents, employees and representatives; and the United States of America.
 - ii. Business automobile liability insurance with limits not less than \$1 million per occurrence. Such insurance shall include coverage for owned, non-owned and hired automobiles.

- iii. Errors & omissions liability coverage with limits not less than \$1 million per claim (where applicable – see Section III.E below.)
 - iv. Workers compensation insurance as required by South Dakota law.
 - b. Special Provisions Applicable to All Coverages:
 - i. The insurer or the insurer's agent must make a reasonable effort to provide the Authority with thirty (30) days' prior written notice of cancellation.
 - ii. Self-insured retentions must be declared and approved by the Authority.
 - c. Evidence of Insurance: Prior to commencement of work, the Contractor or Project Sponsor shall furnish the Authority with certificates evidencing compliance with the insurance requirements above. The Contractor or Project Sponsor must agree to provide complete, certified copies of all required insurance policies if requested by the Authority.
 - d. Acceptability of Insurers. Insurance shall be placed with reputable insurers acceptable to the Authority.
3. Category Three ("Intermediate Risk").
- a. Minimum Insurance. Prior to commencement of work, the Contractor or Project Sponsor will procure and maintain the following insurance:
 - i. Commercial general liability insurance with limits of liability of not less than \$1 million and not more than \$5 million per occurrence, as determined by the Risk Manager. Such insurance shall name as additional insureds Barrick Gold Corporation, Homestake Mining Company of California and the Affiliates of Barrick and Homestake and each of its and their Representatives; the State of South Dakota; the South Dakota Science and Technology Authority, its officers, agents, employees and representatives; The Regents of the University of California, its officers, agents, employees and representatives; Fermi National Accelerator Laboratory, LLC, its officers, agents, employees and representatives; and the United States of America. All additional insureds coverage must include current and completed operations.
 - ii. Business automobile liability insurance with limits not less than \$1 million per occurrence. Such insurance shall include coverage for owned, non-owned and hired automobiles.
 - iii. Errors & omissions liability coverage with limits not less than \$1 million per claim (where applicable – see Section III.E below.)
 - iv. Workers compensation insurance as required by South Dakota law.
 - b. Special Provision Applicable to All Coverages. Self insured retentions must be declared and approved by the Authority.
 - c. Special Provisions Applicable to the Commercial General Liability Insurance. The commercial general liability policy shall:
 - i. Provide contractual liability coverage at least as broad as Insurance Services Office ("ISO") form CG 00 01 12 07 or its equivalent.

- ii. Waive the insurer's right of subrogation against the Homestake Indemnified Parties.
 - iii. State that it is primary and non-contributory and shall apply without consideration for other policies carried by the Homestake Indemnified Parties.
- d. Notice of Cancellation or Material Change in Coverage/Condition. The Contractor or Project Sponsor must use its best efforts to cause each insurer or the insurer's agent to make a reasonable effort to provide the Authority thirty (30) days' prior written notice of cancellation or material change in coverage or condition.
 - e. Evidence of Insurance. Prior to commencement of the work, the Contractor or Project Sponsor shall furnish the Authority with certificates evidencing compliance with the insurance requirements above. The Contractor agrees to provide complete, certified copies of all required insurance policies if requested by the Authority.
 - f. Acceptability of Insurers. Insurance shall be placed with reputable insurers acceptable to the Authority.
 - g. Waivers. The Risk Manager may modify or waive any of the requirements in subsections 3(a) through 3(f) above upon the terms and conditions of this subsection (g); provided, however that in no circumstance may the Risk Manager waive requirements set out above in subsection 3(a)(i). The Risk Manager may waive requirements under this subsection (g) after taking into account whether the activity will be underground or on the surface; the duration, nature and complexity of any activity taking place underground; and the Authority's potential exposure to loss resulting from the activity.
4. Category Four ("Increased Risk").

- a. Minimum Insurance. Prior to commencement of work, the Contractor or Project Sponsor will procure and maintain the following insurance:
 - i. Commercial general liability insurance with limits of liability of \$5 million or greater per occurrence, as determined by the Risk Manager after consideration of the nature and scope of the work or Project. Such insurance shall name as additional insureds Barrick Gold Corporation, Homestake Mining Company of California and the Affiliates of Barrick and Homestake and each of its and their Representatives; the State of South Dakota; the South Dakota Science and Technology Authority, its officers, agents, employees and representatives; The Regents of the University of California its officers, agents, employees and representatives; Fermi National Accelerator Laboratory, LLC, its officers, agents, employees and representatives and the United States of America. All additional insureds coverage must include current and completed operations.
 - ii. Business automobile liability insurance with limits not less than \$1 million per occurrence. Such insurance shall include coverage for owned, non-owned and hired automobiles.

- iii. Errors & omissions liability coverage with limits not less than \$1 million per claim given the nature and scope of work and determined by Risk Manager (where applicable – see Section III.E below.)
 - iv. Workers compensation insurance as required by South Dakota law.
- b. Special Provision Applicable to All Coverages. Self-insured retentions must be declared and approved by the Authority.
- c. Special Provisions Applicable to the Commercial General Liability Insurance. The commercial general liability policy shall:
- i. Provide contractual liability coverage at least as broad as Insurance Services Office (“ISO”) form CG 00 01 12 07, or its equivalent.
 - ii. Waive the insurer’s right of subrogation against the Homestake Indemnified Parties.
 - iii. State that it is primary and non-contributory and shall apply without consideration for other policies carried by the Homestake Indemnified Parties.
 - iv. Include a provision that the insurer will not raise any coverage defense based on the statutory immunity of the State of South Dakota, the Authority or the Homestake Indemnified Parties.
- d. Notice of Cancellation or Material Change in Coverage/Condition. The Contractor or Project Sponsor must use its best efforts to cause each insurer or the insurer’s agent to make a reasonable effort to provide the Authority thirty (30) days’ prior written notice of cancellation or material change in coverage or condition.
- e. Evidence of Insurance. Prior to commencement of the work, the Contractor or Project Sponsor shall furnish the Authority with certificates evidencing compliance with the insurance requirements above. The Contractor agrees to provide complete, certified copies of all required insurance policies if requested by the Authority.

Acceptability of Insurers. Insurance shall be placed with reputable insurers acceptable to the Authority.

E. Subcontractors and consultants.

- 1. The categories of risk and insurance requirements for each shall apply not only to the general contractor, but also to all subcontractors, consultants and others doing work in connection with a contract or Project under the direction or auspices of a Contractor or Project Sponsor. A category of risk and the applicable insurance requirements will be determined on a “per subcontractor” or “per consultant” basis, taking into account the particular work to be done by the subcontractor or consultant and the interrelationship of that work to other work being conducted by the Contractor or Project Sponsor.

2. By way of illustration but not limitation, a subcontractor providing lunch delivery services on the Surface Property to a general contractor doing work in the Underground Property would be categorized as "Negligible Risk" despite the fact that the general contractor's work might be categorized as "Intermediate Risk" or "Increased Risk." A consultant never entering the Underground Property but providing design work relating to hoists or ventilation in the Underground Property might be categorized as "Increased Risk."

F. Supplemental Coverages.

1. Illustration 1 below describes when supplemental insurance coverages should be required in certain circumstances; in many cases more than one type of insurance may be required. To use Illustration 1, identify the activity(ies) to be performed by the Contractor or Project Sponsor in the first column of the table. Then note the insurance coverage necessary to protect against losses that may arise from that activity. Finally, proceed to Section III.E.2 below to determine how to modify the standard insurance requirements.

Coverage Requirement	Professional Liability	Pollution Liability	Builders Risk	Aircraft Liability	Cargo Insurance	Installation Floater, .
Contract Activity Involves:						
Construction or Remodeling Projects Construction or remodeling projects over \$50,000 (excluding contracts for grading and/or paving)			X			
Hazardous or Waste Materials Removal of asbestos or lead-based paint; or the use, application, transport, removal, cleanup or disposal of hazardous material in quantities of 100 gallons or more; or the disposal, treatment, transport or storage of waste.		X				
Installation of Equipment						X
Professional Contractor Services from an accountant, architect, attorney, claims administration firm, consultant, engineer, financial advisor, medical professional, or other person who maintains a professional license	X					
Supply-- FOB Destination Supplying of all goods and equipment where Contractor is responsible for the goods/equipment to the point of delivery (FOB destination)					X	
Use of Aircraft				X		

Illustration 1

2. Based upon Illustration 1 and taking into account all relevant circumstances, the following supplemental coverages will be required:
 - a. Aircraft Liability Insurance. Add the following requirement: aircraft liability insurance with limits not less than \$5,000,000.00 per occurrence for airplanes with seven seats or less, and \$10,000,000.00 per occurrence for aircraft with eight seats or above.
 - b. Builders Risk Insurance. Add the following requirement: All Risk Builders Risk, Special Form insurance or its equivalent, at replacement cost for materials,

supplies, equipment, machinery and fixtures that are, or will become, part of Authority-owned property. Such insurance shall:

- 1) Remain in effect until completion of the project and acceptance by the Authority.
 - 2) Include coverage for earthquake, flood, ordinance or law, temporary offsite storage, debris removal, pollutant cleanup and removal, preservation of property, excavation costs, landscaping, shrubs and plants and full collapse coverage during construction.
- c. Cargo Insurance. Add the following requirement: Cargo insurance covering the value of the goods or equipment to be delivered until the goods or equipment is accepted by the owner.
- d. Installation Floater. Add the following requirement: Installation floater covering the value of the equipment to be installed. Such insurance shall include:
- 1) The owner as insured.
 - 2) Coverage for testing, water damage, mechanical breakdown and electrical injury.
- e. Pollution Liability Insurance. Add the following requirement: Pollution Liability insurance for bodily injury, property damage, cleanup and defense costs with limits not less than \$1,000,000 per claim/\$1,000,000 annual aggregate and greater, depending on the extent of the risk given the potential severity and likelihood of pollution liabilities. The policy shall be endorsed to include the Authority, its officers, employees and representatives as insureds.
- f. Professional Liability Insurance. Add the following requirement: Professional Liability insurance with limits not less than \$1,000,000 per claim/\$1,000,000 annual aggregate or greater, depending on the extent of the risk given the nature and scope of work.
- G. Inclusion of the Homestake Indemnified Parties as Additional Insureds. The Homestake Indemnified Parties shall be named as additional insureds on all insurance policies required by Contractors and Project Sponsors assigned to risk Categories Three and Four.
- H. Contracts with Certain Funding Agencies.

The insurance requirements for contracts, including grant agreements, entered into with the United States government and its contractors and subcontracts to provide funding for the general operations and maintenance of Authority facilities and extraordinary projects shall be negotiated by the Executive Director, in consultation with the Chairperson of the Board, the Authority's legal counsel, and the Risk Management Consultant, taking into account the insurance requirement provisions of these Protocols, the risk to the Authority and the State of South Dakota, and the overall best interests of the overall mission of the Authority.

IV. RISK TRANSFER IN LIEU OF OR IN CONJUNCTION WITH COMMERCIAL INSURANCE.

- A. Overview. There may be instances where Contractors or Project Sponsors cannot or will not provide commercial insurance with the coverages and limits of coverage described above. The following sections describe when the Authority will waive insurance requirements or accept “self-insurance.”
- B. Waiver in lieu of other risk transfer mechanisms.
1. There may be situations where it is necessary or appropriate to waive certain insurance requirements. These include situations where:
 - a. There is negligible risk of loss from a particular activity. For example, where the Contractor will not be operating a vehicle in performance of the work, the business automobile insurance requirement may be waived.
 - b. Requiring insurance is inconsistent with industry practice. For example, information technology service providers (such as software vendors) are generally unwilling to agree to standard insurance requirements. In these situations, the Authority will do its best to negotiate the most favorable terms possible to adequately protect the Authority.
 - c. The Contractor provides a highly specialized service such that:
 - 1) The Contractor has substantial leverage in the negotiation process, and
 - 2) The Authority has no reasonable alternative markets for the services required.
 2. In these circumstances, the Authority will negotiate the most favorable terms possible and will seek alternative means of transferring and mitigating risk, such as bonding, letters of credit, cash deposits, additional training, additional supervision by Authority, personnel and/or qualified Authority personnel to accompany Project Sponsors or their representative at all times.
- C. Acceptance of extraordinary retentions or “self-insurance.” In some circumstances, the Authority will accept extraordinary retention or “self-insurance” in lieu of traditional commercial insurance. For the purposes of these protocols, the term “extraordinary retention” means retention or deductibles of \$100,000 or more. When evaluating proposals to transfer risk in that fashion, the Risk Manager, in consultation with the Risk Management Consultant, shall consider the following factors:
1. The ability of the retained risk pool or “self-insurance” to provide scope and amounts of coverage reasonably equivalent to those available with a commercial insurance product.
 2. Evidence that the alternative arrangement has sufficient financial security to pay claims as presented.

3. Evidence that the alternative arrangement has an adequate claims management system in place to provide proper handling of claims should they arise.
- D. Insurance or self-insurance purchased or provided by Project Sponsor collaborations. In many instances, there will not be a single Project Sponsor. Rather, a Project may be sponsored by a collaboration of various public and/or private laboratories or institutions of higher learning. In those circumstances, it is the responsibility of the collaboration to provide commercial insurance or some combination of “self-insurance” sufficient to satisfy the requirements imposed by the Risk Manager. Any such risk transfer mechanism must be reasonably acceptable to the Risk Manager, the Risk Management Consultant and the Authority’s general counsel.

V. EVIDENCE OF CONTRACTOR OR PROJECT SPONSOR COMPLIANCE

- A. Certificates of Insurance. Each Contractor and Project Sponsor is required to provide the Authority evidence of compliance with the Authority’s insurance requirements prior to commencement of work, unless the requirements are waived. The evidence of compliance will consist of a certificate of insurance issued by the Contractor’s insurer or broker or a similar document issued by a risk pool or “self-insurance” fund.
- B. Review. The insurance evidenced on the certificate will be compared to the contract requirements by the Risk Manager. To assist Authority personnel reviewing the certificates of insurance, the completed contract review checklist may be used in lieu of the actual contract. The Risk Manager will review the Contractor’s certificate of insurance to verify:
1. The Contractor or Project Sponsor maintains the type of coverage and limits required in the contract or memorandum of understanding.
 2. The Contractor’s or Project Sponsor’s insurers maintain acceptable financial ratings. This will be determined by confirming the insurer financial rating on www.ambest.com. All insurers with a financial rating below A-, VII or without an A.M. Best rating, will be subject to further evaluation by the Risk Management Consultant.
 3. The Contractor’s policies are current.
 4. The appropriate “additional insured” language is included with respect to the Contractor’s general liability policy (and pollution liability policy where applicable).
 5. The appropriate cancellation notice language is included.
 6. Other insurance requirement provisions are compiled with and the certificate otherwise contains complete and accurate information.
- C. Samples. Sample certificates of insurance are provided in the following appendices:
1. Appendix D – Evidence of insurance required by contracts using Category 2.

2. Appendix E – Evidence of insurance required by contracts using Category 3.
3. Appendix F – Evidence of insurance required by contracts using Category 4.
4. Appendix I – Certificate of Insurance Review Checklist. The Authority may use the checklist to assist in and document the review of each certificate of insurance. The checklist items are ordered as they would ordinarily appear on a typical certificate of insurance.

D. Examples of Unsatisfactory Evidence of Compliance. When reviewing certificates of insurance, there may be omissions, inaccuracies or other instances where the certificate does not appear to provide reliable evidence of compliance with Authority requirements. Common examples of those deficiencies and how the Authority responds to them are:

1. The Contractor or Project Sponsor is not the insured. This may be an error on the part of the issuer. For example, it is possible the parent company of the Contractor is named. If so, the Authority asks for a certificate that identifies both the parent and its subsidiary as the insured.
2. The insurer is not rated by A.M. Best or maintains an A.M. Best rating below A-, VII.
3. The actual name(s) of the insurer(s) may differ from what is on the certificate. The name can be re-confirmed with the agent/broker. If the certificate does not accurately reflect the name(s) of the insurer(s), the Risk Manager shall be notified and the certificates rejected.
4. Contractor or Project Sponsor policies have effective dates later than the contract or memorandum of understanding effective date. The Contractor must provide a certificate evidencing coverage effective prior to or coincidental with the contract's effective date.
5. Contractor or Project Sponsor policies expire prior to contract expiration. The Authority will schedule follow-up contact with the Contractor, Project Sponsor or its or their broker at the time the certificate is reviewed. The date scheduled for follow-up will be no less than two (2) weeks prior to expiration of the policy(ies). The Authority will request an updated certificate be issued evidencing a policy with coverage period of an additional twelve (12) months. The failure to maintain continuous coverage will result in a stop work order from the Authority.
6. Coverages do not match Authority requirements. The Contractor or Project Sponsor must supply a certificate evidencing the coverage required. Some Contractors or Project Sponsors may have more than one insurance provider. If the certificate being reviewed does not evidence all coverage, it is possible that the Contractor or Project Sponsor needs to request the other agent(s)/broker(s) /insurer(s) issue a certificate evidencing the missing insurance.
7. Policy limits do not match Authority requirements. Be sure excess liability limits are considered. These limits are listed separately on the certificate, not included

in the commercial general liability policy limits. If necessary, the Contractor or Project Sponsor must apply a revised certificate evidencing the required limits.

8. The certificate does not specify the appropriate parties as additional insureds. The certificate may fail to identify one or all of the appropriate parties as additional insured. This omission may be ignored if there is an additional insured endorsement attached to the certificate with the appropriate parties identified as additional insureds. If no such endorsement is attached, the certificate must be revised to include the proper additional insured language. If the Contractor or Project Sponsor or its agent/broker is unwilling to include this language, notify the Risk Manager and reject the certificates.
9. The certificate discloses a self-insured retention and/or deductible of \$50,000.00 or greater. The Authority is relying on the certificate issuer to report self-insured retentions on the certificate. Retentions and/or deductibles of \$50,000.00 or greater are subject to the approval of the Risk Management Consultant.
10. Cancellation notice is less than the 30 days required or is unspecified. A new certificate indicating the proper notice of cancellation of provision will be requested.
11. The certificate is not signed. An unsigned certificate is unacceptable. The Contractor or Project Sponsor must provide a signed certificate prior to commencement of work.



Appendix A

6.10 (b) and 6.10 (d) of the Property Donation Agreement

A handwritten signature in dark ink, appearing to be "J. H.", is located in the bottom right corner of the page.

6.10 (b) of the Property Donation Agreement

(b) Prior to authorizing any Contractor or Project Sponsor or its or their Representatives to enter the Underground Property, the Authority shall prepare a written agreement, in a form that is reasonably acceptable to Homestake, that includes, among other things, (i) a declaration that the Contractor or Project Sponsor, as applicable, has investigated the risks associated with the Surface Property and the Underground Property, (ii) a declaration that the Contractor or Project Sponsor, as applicable, has developed an informed understanding of the risks associated with going underground, and (iii) an agreement to be executed by each Contractor in which it agrees that it will and does release, discharge and agree not to sue the Homestake Indemnified Parties with respect to any damage or injury to any Person or property caused by the Contractor or its Representatives and an agreement to be executed by each Project Sponsor in which it agrees that it will and does release, discharge and agree not to sue the Homestake Indemnified Parties with respect to any damage or injury to any Person or property caused by the Project Sponsor or its Representatives. The Authority covenants that, as a condition of permitting any Contractor or its Representatives or any Project Sponsor or its Representatives to enter the Underground Property, each Contractor or Project Sponsor requesting to enter the Underground Property on its own behalf or on behalf of its Representatives will be required to execute such written agreement.

6.10 (d) of the Property Donation Agreement

(d) The Authority shall employ a Risk Manager on a full-time basis (though the Risk Manager may perform other duties for the Authority). The Risk Manager shall report to the Executive Director, but shall also have the separate and independent duty and ability to report directly to general counsel for the Authority. The Authority shall, in consultation with a reputable independent risk management consultant, adopt a written risk management plan that includes, among other things, (i) general categories of Contractors and Project Sponsors, organized by level of risk, (ii) the types of coverage and limits of liability to be required for each category, (iii) a requirement that the Homestake Indemnified parties be named as additional insureds on all commercial insurance policies required of Project Sponsors, (iv) the criterion used to determine whether the Homestake Indemnified Parties must be named as additional insureds on commercial insurance policies required of Contractors, and (v) the criterion to be used to determine whether a retained risk plan, pool or other form of "self-insurance" is acceptable in combination with or in lieu of commercial insurance. The risk management plan shall delegate to the Risk Manager the power to categorize a Contractor or Project Sponsor. As to relatively low levels of risk, the risk management plan shall provide that the Risk Manager's decision concerning types of coverage, limits of liability and whether a retained risk plan, pool or other form of "self-insurance" is acceptable shall be final. As to relatively high levels of risk, the Risk Manager's decision shall be subject to review and approval by a reputable independent risk management consultant. The Authority shall fully implement and not deviate from said risk management plan; provided, however, that the Authority may amend the risk management plan from time-to-time so long as it provides a copy to Homestake prior to implementation. Until such time as the risk management plan has been adopted and implemented, and a copy provided to Homestake, the original provisions of this Section 6.10 (prior to this Amendment) shall remain in full force and effect.

Appendix B

Acknowledgment of Risk



Name: _____

**South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)**

ACKNOWLEDGEMENT OF RISK

In consideration for being permitted to enter upon the property of the South Dakota Science and Technology Authority (referred to in this document as the "Authority") located in and near Lead, South Dakota, including both the surface property and the underground workings and facilities owned by the Authority (referred to in this document as the "Authority's Surface Property" or the "Authority's Underground Property" and collectively, the "Authority's Property"), which permission was granted at my request, I do hereby freely and knowingly state, declare, and agree as follows:

(Initial) ____ 1. I have independently investigated the risks to my health, life, and safety and the risks of damage to my property resulting from my entry, presence, and activities upon and in the Authority's Property, including both the surface property and the underground property. Based upon that investigation, I have developed an informed understanding of the risks to me and my property resulting from my entry, presence, and activities upon either or both of the Authority's Surface Property and the Authority's Underground Property.

(Initial) ____ 2. Without limiting the generality of paragraph 1 above, I am aware that the Authority's Surface Property is a former commercial mine which includes and contains heavy machinery, high-voltage electrical connections and conduits, open catwalks and other elevated walkways, apparent and hidden hazards of tripping or falling, industrial and mining chemicals and other agents, naturally-occurring minerals, naturally-occurring land and environmental conditions that are potentially hazardous, fully or partially reclaimed mine facilities (including, but not limited to, open pits, underground mine workings, process plants and waste rock areas), possible air-borne contaminants, high-pressure lines and vessels, falling or low-hanging items that present a risk of head injury and numerous other serious apparent, and unapparent risks to my health, life and safety and risks of damage to my property.

(Initial) ____ 3. Without limiting the generality of paragraph number 1 above, I am further aware that in addition to the risks associated with the Authority's Surface Property described in paragraph 2 above, the Authority's Underground Property is also a former commercial mine and it also includes and contains heavy machinery, high-voltage electrical connections, and conduits, open catwalks and other elevated walkways, underground mine workings, apparent and hidden hazards of tripping or falling, industrial and mining chemicals and agents, naturally-occurring minerals, naturally-occurring geologic and environmental conditions that are potentially

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ACKNOWLEDGEMENT OF RISK

hazardous, possible air-borne contaminants, high-pressure lines and vessels and falling or low-hanging rock or other items that present a risk of head injury. I am further aware that going underground involves a substantial risk of underground fires, underground floods, roof falls and collapse, failure of lifts, hoists and ventilation equipment, suffocation, being trapped, being crushed to death and numerous other serious apparent and unapparent risks to my health, life and safety, and risks of damage to my property.

(Initial) ____ 4. I acknowledge I have the time, knowledge, and experience to make an intelligent choice concerning whether to assume the risks associated with my entry, and activities upon or in the Authority's Surface Property, the Authority's Underground Property, or both.

(Initial) ____ 5. I do hereby voluntarily, freely, and unconditionally assume any and all risk of damage to my health, personal injury, death, and damage to my property in any way associated with my entry, presence, or activities upon, in, or around Authority's Surface Property and the Authority's Underground Property.

(Initial) ____ 6. I acknowledge that I have been given a safety briefing or safety training, and I agree to abide by guidelines explained during that briefing or training.

(Initial) ____ 7. In the interest of safety and security, I agree that any person or property may be subject to inspection by Authority personnel at any time I am on Authority property.

(Initial) ____ 8. I acknowledge that my failure to comply with any applicable law, regulation, rule, or policy (including the guidelines explained during my safety briefing or safety training) is grounds for the Authority to immediately revoke my permission to enter Authority's Property, to order me to immediately leave the Authority's Property, and to deny me future access to the Authority's Property. I agree to immediately comply with all directions given by the Authority to me pursuant to this paragraph.

(Initial) ____ 9. I have been provided and have read and signed (or will sign), a document entitled "RELEASE, AGREEMENT NOT TO SUE AND WAIVER."

(Initial) ____ 10. I acknowledge that I have provided valid personal identification to Authority Personnel.

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South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)

ACKNOWLEDGEMENT OF RISK

I HAVE READ THIS ACKNOWLEDGEMENT OF RISK, CONSISTING OF THREE PAGES AND TEN NUMBERED PARAGRAPHS. I FULLY UNDERSTAND ITS TERMS AND THE RISKS DESCRIBED IN IT. I HAVE SIGNED IT FREELY AND VOLUNTARILY WITHOUT INDUCEMENT, ASSURANCE, OR GUARANTEE BEING MADE TO ME.

DATED this _____ day of _____, 20____.

[PRINT NAME]

I HAVE READ THIS ACKNOWLEDGEMENT

[SIGNATURE]

I am requesting permission to enter the Authority's property as an officer, agent, employee, consultant, scientific investigator, student, visitor, and I am otherwise affiliated with _____.

FOR OFFICE USE ONLY:

Witnessed by: _____ Logged by: _____
[Print Name]

Witnessed by: _____ Date Logged: _____
[Signature]

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Appendix C

Release, Agreement Not to Sue and Waiver





Name: _____

**South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)**

RELEASE, AGREEMENT NOT TO SUE AND WAIVER

In consideration for being permitted to enter upon the property of the South Dakota Science and Technology Authority (referred to in this documents as the "Authority") located in and near Lead, South Dakota, including both the surface property and the underground workings and facilities owned by the Authority (referred to in this document as the "Authority's Surface Property" or the "Authority's Underground Property" and collectively, the "Authority's Property"), which permission was granted at my request, I do hereby freely and knowingly state, declare and agree as follows:

(Initial) ____ 1. I have today been provided and have read and signed a form entitled "ACKNOWLEDGEMENT OF RISK," which describes in general terms the numerous apparent and unapparent risks of serious personal injury, death, or damage to my property, which exists on and in both the Authority's Surface Property, and the Authority's Underground Property.

(Initial) ____ 2. Being fully aware of the risks as described in the accompanying "ACKNOWLEDGEMENT OF RISK," I do hereby voluntarily, freely, and unconditionally release and agree not to sue the following persons and entities for any damage to my health, personnel injury, death and/or damage to my property in way associated with my entry, presence or activities upon, in, or around the Authority's Surface Property and/or the Authority's Underground Property, and I further hereby waive any such claims I may have against the following persons and entities. This release, agreement not to sue and waiver is given in favor of the following persons and entities:

(Initial) ____ (a). The State of South Dakota and its elected representatives and officers, unelected officers, employees, agents consultants and representatives; and

(Initial) ____ (b). The South Dakota Science and Technology Authority and its officers, directors, employees, agents, consultants and representatives, and any visitor, contractor, consultant, or any other person (natural or otherwise) that the South Dakota Science and Technology Authority directs to, invites or permits upon, or authorizes to use the Authority's Property and its or their agents, representatives, consultants, lessees, licensees, and invitees; and

(Initial) ____ (c). Barrick Gold Corporation; any person, partnership, joint venture, corporation, or any other form of enterprise which directly or indirectly controls, is controlled by or is under common control with Barrick Gold Corporation; any officer, director, employee, agent or consultant of Barrick Gold Corporation; and any visitor, contractor, consultant, or any other person (natural or otherwise) that Barrick Gold Corporation directs to, invites, or permits upon or

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A handwritten signature in black ink, appearing to be "J. J. Green", located at the bottom right of the page.



South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)

RELEASE, AGREEMENT NOT TO SUE AND WAIVER

authorizes to use the Authority's Property and its or their agents, representatives, consultants, lessees, licensees, and invitees; and

(Initial) ____ (d). Homestake Mining Company of California, any person, partnership, joint venture, corporation, or any other form of enterprise which directly or indirectly controls, is controlled by, or is under common control with Homestake Mining Company of California; any officer, director, employee, agent, or consultant of Homestake Mining Company of California; and any visitor, contractor, consultant, or any other person (natural or otherwise) that Homestake Mining Company of California directs to, invites, or permits upon, or authorizes to use the Authority's Property and its or their agents, representatives, consultants, lessees, licensees, and invitees; and

(Initial) ____ (e). Mr. T. Denny Sanford or any other person or entity providing funding or other support for the construction, operation, and maintenance of the Authority, the Authority's Property, and/or the Sanford Underground Science and Engineering Laboratory.

(Initial) ____ 3. I understand that this document does not act to release, discharge, or waive any rights I may have to compensation or the payment of medical expenses under applicable workers compensation law.

(Initial) ____ 4. The release, agreement not to sue and waiver contained in this documents includes any and all claims I or my heirs, representatives, successors, or assigns (including, but not limited to, my family) may have as a result of any damage to my health, injury to me, my death, or damage to my property, including incidental and consequential damages and loss of income, support, and companionship.

(Initial) ____ 5. I agree that if a court or other tribunal with jurisdiction rules that some portion of this document is for any reason unenforceable, the remaining portions of this document shall remain valid and enforceable.

(Initial) ____ 6. The release and waiver contained in this document and my agreement not to sue the parties named above is and will be binding on me and my heirs, representative, successors, and assigns (including, but not limited to, my spouse and other family).

(Initial) ____ 7. I acknowledge that I have provided valid personal identification to Authority Personnel.

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South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)

RELEASE, AGREEMENT NOT TO SUE AND WAIVER

I HAVE READ THIS RELEASE, AGREEMENT NOT TO SUE AND WAIVER, CONSISTING OF THREE PAGES AND SEVEN NUMBERED PARAGRAPHS. I FULLY UNDERSTAND ITS TERMS, UNDERSTAND THAT I HAVE GIVEN UP SUBSTANTIAL RIGHTS BY SIGNING IT, AND HAVE SIGNED IT FREELY AND VOLUNTARILY WITHOUT ANY INDUCEMENT, ASSURANCE, OR GUARANTEE BEING MADE TO ME. I INTEND MY SIGNATURE TO BE A COMPLETE AND UNCONDITIONAL RELEASE OF ALL LIABILITY, AGREEMENT NOT TO SUE AND WAIVER OF LIABILITY TO THE GREATEST EXTENT ALLOWED BY LAW.

DATED this _____ day of _____, 20____.

[PRINT NAME]

I HAVE READ THIS RELEASE, AGREEMENT NOT TO SUE AND WAIVER

[SIGNATURE]

I am requesting permission to enter the Authority's Property as an officer, agent, employee, consultant, scientific investigator, student, visitor, and I am otherwise affiliated with _____.

FOR OFFICE USE ONLY:

Witnessed by: _____ Logged by: _____
[Print Name]

Witnessed by: _____ Date Logged: _____
[Signature]

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Appendix D

Sample Certificate of Insurance – Evidencing Compliance with Insurance Requirements in Category 2



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED Party entering into a contract with South Dakota Science and Technology Authority	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: ABC Insurance Co.	
	INSURER B: 123 Insurance Co.	
	INSURER C:	
	INSURER D:	
INSURER E:		
INSURER F:		

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY			123ABC	07/15/2013	07/15/2014	EACH OCCURRENCE	\$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	<input checked="" type="checkbox"/>					DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person)	\$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	\$ 1,000,000
	<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						GENERAL AGGREGATE	\$ 1,000,000
A	AUTOMOBILE LIABILITY			ABC123	07/15/2013	07/15/2014	PRODUCTS - COMP/OP AGG	\$ 1,000,000
	<input type="checkbox"/> ANY AUTO						SIR/Deductible	\$ 50,000
	<input checked="" type="checkbox"/> ALL OWNED AUTOS	<input checked="" type="checkbox"/> SCHEDULED AUTOS					COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> NON-OWNED AUTOS					BODILY INJURY (Per person)	\$
	UMBRELLA LIAB						BODILY INJURY (Per accident)	\$
	EXCESS LIAB						PROPERTY DAMAGE (Per accident)	\$
	DED							\$
	RETENTIONS							\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			ABC321	07/15/2013	07/15/2014	<input checked="" type="checkbox"/> WC STATUTORY LIMITS	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/>	N/A				E.L. EACH ACCIDENT	\$ 500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	\$ 500,000
							E.L. DISEASE - POLICY LIMIT	\$ 500,000
B	Errors and Omissions			56789	07/15/2013	07/15/2014	Per Claim \$1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

South Dakota Science and Technology Authority, its officers, agents, employees and representatives; The Regents of the University of California, its officers, agents, employees and representatives; and the United States of America are included as Additional Insured as required by written contract with respects to the General Liability policy.

CERTIFICATE HOLDER

CANCELLATION

South Dakota Science & Tech. Authority 630 E. Summit St. Lead SD 57754-1700	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE
	SIGNED

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ACORD 25 (2010/05)

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Appendix E
Sample Certificate of Insurance –
Evidencing Compliance with
Insurance Requirements in Category 3

A handwritten signature in dark ink, appearing to be 'JPS', is located in the bottom right corner of the page.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER 	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS:
INSURED Party entering into a contract with South Dakota Science and Technology Authority	INSURER(S) AFFORDING COVERAGE
	INSURER A: ABC Insurance Co.
	INSURER B: 123 Insurance Co.
	INSURER C:
	INSURER D:
	INSURER E:

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY			123ABC	07/15/2013	07/15/2014	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY \$ 1,000,000
	<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOG						GENERAL AGGREGATE \$ 1,000,000
A	AUTOMOBILE LIABILITY			ABC123	07/15/2013	07/15/2014	PRODUCTS - COM/PCP AGG \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						SIR/Deductible \$ 50,000
	<input checked="" type="checkbox"/> ALL OWNED AUTOS	<input type="checkbox"/> SCHEDULED AUTOS					COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> NON-OWNED AUTOS					BODILY INJURY (Per person) \$
							BODILY INJURY (Per accident) \$
A	UMBRELLA LIAB						PROPERTY DAMAGE (Per accident) \$
	EXCESS LIAB						
	<input type="checkbox"/> OCCUR						
	<input type="checkbox"/> CLAIMS-MADE						
	DED RETENTIONS						
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			ABC321	07/15/2013	07/15/2014	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/>	N/A				E.L. EACH ACCIDENT \$ 500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 500,000
							E.L. DISEASE - POLICY LIMIT \$ 500,000
B	Errors and Omissions			56789	07/15/2013	07/15/2014	Per Claim \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Barrick Gold Corporation, Homestake Mining Company of California, and the Affiliates of Barrick and Homestake and each of its and their representatives, and the South Dakota Science and Technology Authority, its officers, agents, employees and representatives, and The Regents of the University of California, its officers, agents, employees and representatives, and the United States of America are included as Additional Insured as required by written contract with respects to the General Liability policy. A Waiver of Subrogation is granted in favor of Certificate Holder as required by written contract but limited to the operations of the Insured under said contract, with respect to the General Liability policy.

CERTIFICATE HOLDER

CANCELLATION

South Dakota Science & Tech. Authority 630 E. Summit St. Lead SD 57754-1700	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE SIGNED
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Caterpillar File: CRG-20-02480
 Caterpillar Doc #7657481v20
 Execution Version

Risk Transfer Protocols (Rev 06.2016) - Page 28 of 39

Caterpillar: Confidential Green

Page 53 of 71

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Appendix F
Sample Certificate of Insurance –
Evidencing Compliance with
Insurance Requirements in Category 4



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER	CONTACT NAME:		FAX (A/C, No):	
	PHONE (A/C, No, Ext):		E-MAIL ADDRESS:	
INSURED	INSURER(S) AFFORDING COVERAGE			NAIC#
	INSURER A: ABC Insurance Co.			1111
	INSURER B: XYZ Insurance Co.			2222
	INSURER C: 123 Insurance Co.			3333
	INSURER D:			
	INSURER E:			

Party entering into a contract with South Dakota Science and Technology Authority

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR	WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY			123ABC	07/15/2013	07/15/2014	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY \$ 1,000,000
	<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						GENERAL AGGREGATE \$ 1,000,000
A	AUTOMOBILE LIABILITY			ABC123	07/15/2013	07/15/2014	PRODUCTS - COMP/PROP AGG \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						SIR/Deductible \$ 50,000
	<input checked="" type="checkbox"/> ALL OWNED AUTOS	<input type="checkbox"/>	<input checked="" type="checkbox"/>				COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				BODILY INJURY (Per person) \$
	<input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS						BODILY INJURY (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	321ABC	07/15/2013	07/15/2014	PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> EXCESS LIAB	<input type="checkbox"/>	<input type="checkbox"/>				EACH OCCURRENCE \$ 4,000,000
	<input checked="" type="checkbox"/> DED <input type="checkbox"/> RETENTIONS						AGGREGATE \$ 4,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			ABC321	07/15/2013	07/15/2014	\$
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. EACH ACCIDENT \$ 500,000
							E.L. DISEASE - EA EMPLOYEE \$ 500,000
C	Errors and Omissions			56789	07/15/2013	07/15/2014	E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Barrick Gold Corporation, Homestake Mining Company of California, and the Affiliates of Barrick and Homestake and each of its and their representatives; the South Dakota Science and Technology Authority, its officers, agents, employees and representatives; The Regents of the University of California, its officers, agents, employees and representatives, and the United States of America are included as Additional Insured as required by written contract with respects to the General Liability policy. A Waiver of Subrogation is granted in favor of Certificate Holder as required by written contract but limited to the operations of the Insured under said contract, with respect to the General Liability policy. "Insured" is primary and any insurance maintained by the additional insureds shall be non-contributing with "Insured's" insurance as respects claims or liability arising out of or resulting from the acts or omissions of "Insured".

CERTIFICATE HOLDER

CANCELLATION

South Dakota Science & Tech. Authority 630 E. Summit St. Lead SD 57754-1700	<p>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.</p> <p>AUTHORIZED REPRESENTATIVE</p> <p>SIGNED</p>
---	--

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ACORD 25 (2010/05)

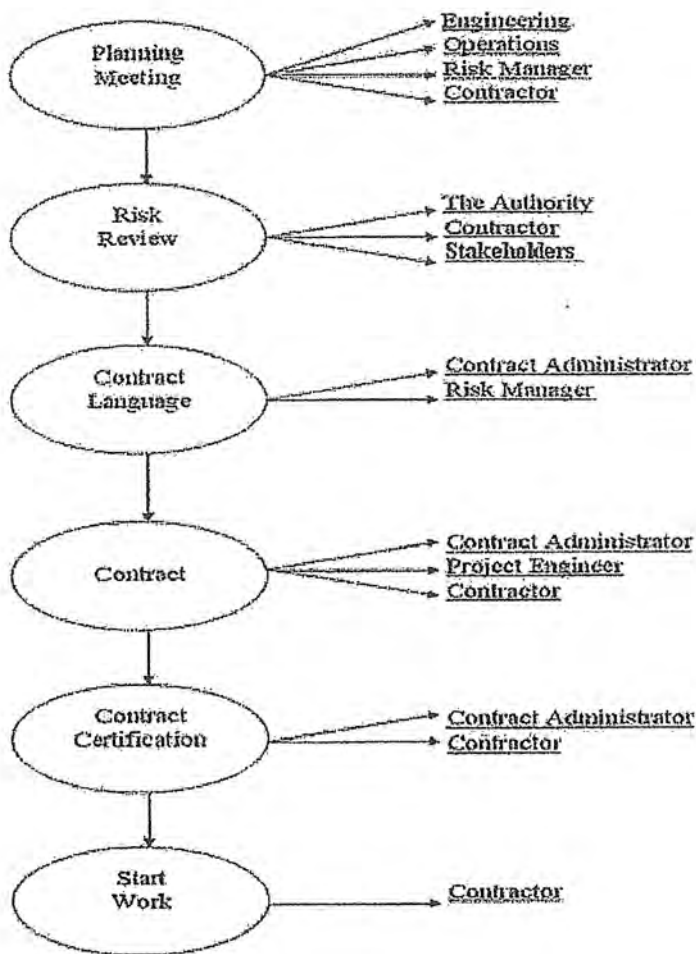
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Appendix G

Risk Transfer Work Flow Diagram



Risk Transfer Work Flow Diagram



Contractor includes service providers, vendors, consultants and Project Sponsors.

Flow Chart 1

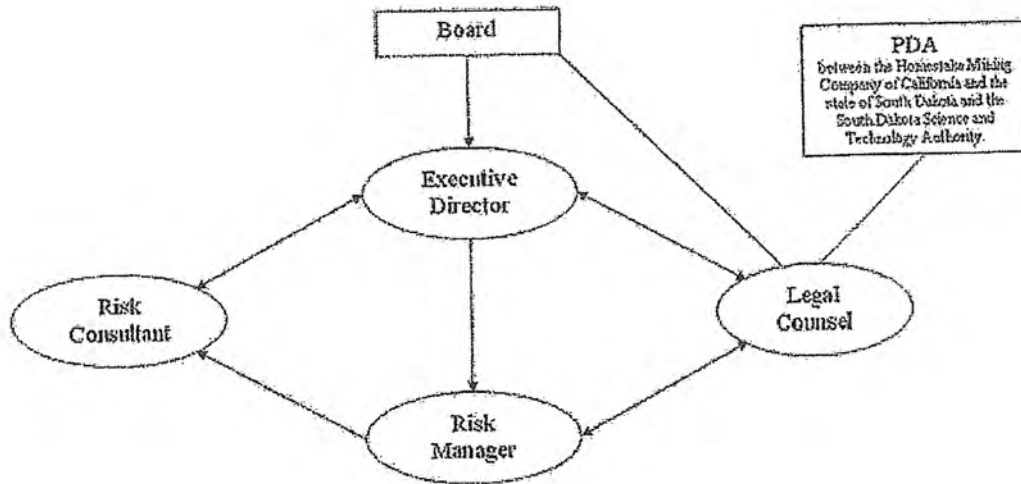
[Handwritten signature]

Appendix H

Risk Management Diagram



Risk Management



Flow Chart 2

Appendix I
Supplementary Policy Guidance and
Certificate of Insurance Review Checklist

A handwritten signature in dark ink, appearing to be "JSS", is located in the bottom right corner of the page.

SUPPLEMENTARY POLICY GUIDANCE
A. RECOMMENDED CONTRACT REVIEW PROCESS

South Dakota Science and Technology Authority
Contract Review Checklist

Date _____

Contractor _____

Contract Term _____

Contract \$ Amount _____

Name of Authority Representative _____

Key: Y = Yes; N = No; NA=Not applicable

_____ Is the construction contract or purchase order for materials total amount over \$25,000.00, if so please complete form and send form, supporting documents and contract to Legal Counsel for review.

_____ Legal Counsel reviews all change orders and other contracts and purchase orders as requested by SDSTA

Indemnification Provisions – this contract contains:

_____ Modifications to Authority's Standard Indemnification Provision

_____ Provisions limiting Contractor's damages or liability

Standard Insurance Requirements

Standard Insurance Requirements included:

_____ Category 2 (Low Risk Surface Contract)

_____ Category 3 (Other Contract Involving Surface or Underground)

_____ Category 4 (Increased Risk Contract)

Waiver of Insurance Requirements

_____ Insurance Requirement waived? If yes,

State type of coverage waived: _____

_____ Risk Manager's written approval and/or risk management consultant approval attached?

_____ Any part of general liability insurance requirements of Category 2, 3, 4 waived (III D 1-4)?

_____ If yes, approval of Executive Director/Legal Counsel obtained?

Supplement to Standard Insurance Requirements

_____ Standard Insurance Requirements must be modified to include the following coverage(s) (USE Category 2,3,4 IN SECTION III.E. of GUIDELINES):

Insert a "✓" next to all insurance requirements that apply:

- _____ Aircraft Liability
- _____ Builders Risk
- _____ Cargo Insurance
- _____ Installation Floater
- _____ Pollution Liability
- _____ Professional Liability

Required Insurance Limits

_____ Are limits other than the standard limits required?

If "yes," indicate the revised limits for each applicable coverage and attach written recommendation from risk management consultant:

- _____ Commercial General Liability
- _____ Business Automobile Liability
- _____ Workers Compensation/Employers Liability
- _____ Aircraft Liability
- _____ Builders Risk
- _____ Cargo Insurance
- _____ Installation Floater
- _____ Pollution Liability
- _____ Professional Liability

Contract Involving Unique Risks

_____ Does the contract involve activities listed in SECTION III.C.1-4 of these guidelines with risks?

If yes, attach risk analysis and, if applicable the review of insurance limits from risk management consultant.

**South Dakota Science and Technology Authority
Certificate of Insurance Review Checklist**

Date _____
Contractor _____
Contract Term _____
Prepared By _____

Key:
✓ = Criteria is met; U = Unsatisfactory; ? = Unable to determine; N/A = Not applicable

Applicable to ALL Contracts

_____ Insurer(s) maintain A.M. Best rating of A-, VII or better.
_____ Contractor is identified as the insured.

	Coverage as required in the contract	Limit is same or greater than required in the contract	Policy in effect when contract commences
Commercial General Liability	_____	_____	_____
Business Automobile Liability	_____	_____	_____
Workers Compensation	_____	_____	_____
Employers Liability	_____	_____	_____
Supplemental Coverages ¹ :	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

_____ The South Dakota Science and Technology Authority, its officers, employees and representatives are named additional insureds on the Contractor's commercial general liability policy.
_____ Declared self-insured retention is not \$100,000 or greater.
_____ The Authority is identified as the certificate holder.
_____ Certificate is signed.

¹ Identify other coverages required under the contract and verify whether these are identified on the certificate of insurance.

Certificate of Insurance Review Checklist

Key:

✓ = Criteria is met; U = Unsatisfactory; ? = Unable to determine; N/A = Not applicable

Where Evidencing Compliance with Contracts.

_____ Does the cancellation provision provide the Authority at least a thirty (30) days' written notice?

Where Evidencing Compliance with Contracts Using Category 4

The Contractor's commercial general liability insurance:

_____ Waives the insurer's right of subrogation against the Homestake Indemnified Parties.

_____ Includes a provision that the insurer will not raise any coverage defense based on the statutory immunity of the State, the South Dakota Science and Technology Authority or the Homestake Indemnified Parties.

_____ Does not include an insured versus insured endorsement.

_____ States that contractual liability coverage is at least as broad as ISO CG 00 01.

_____ Provides sixty (60) days' notice of cancellation or material change in coverage or condition via certified mail, return receipt requested.

EXHIBIT D

Insurance Requirements

A. Minimum Insurance:

Prior to commencement of work, contractor will procure and maintain the following insurance:

1. Commercial general liability insurance with limits not less than Five Million Dollars (\$5,000,000.00) per occurrence. Such insurance shall name as additional insureds Barrick Gold Corporation, Homestake Mining Company of California, and the Affiliates of Barrick and Homestake and each of its and their representatives; the South Dakota Science and Technology Authority, its officers, agents, employees and representatives, Lessee, and the United States of America. All additional insureds coverage must include current and completed operations.
2. Business automobile liability insurance with limits not less than One Million Dollars (\$1,000,000.00) per occurrence. Such insurance shall include coverage for owned, non-owned and hired automobiles.
3. Errors and omissions liability coverage with limits not less than One Million Dollars (\$1,000,000.00) per claim (where applicable.)
4. Workers compensation insurance as required by South Dakota law.

B. Special Provisions Applicable to the Commercial General Liability Insurance: The commercial general liability policy shall:

1. Provide contractual liability coverage at least as broad as Insurance Services Office ("ISO") form CG 00 01 12 07, or its equivalent.
2. Waive the insurer's right of subrogation against the homestake indemnified parties.
3. State that it is primary and non-contributory and shall apply without consideration for other policies carried by the homestake indemnified parties.

C. Notice of Cancellation or Material Change in Coverage/Condition: The contractor or project sponsor will endeavor to provide advance notice of cancellation.

D. Evidence of Insurance: Prior to commencement of work, the contractor or project sponsor shall furnish the Lessor with certificates evidencing compliance with the insurance requirements above.



EXHIBIT E

Environmental, Safety and Health (“ESH”) Requirements

CONTRACTOR’S RESPONSIBILITY FOR PROJECT SAFETY

1. Contractor recognizes the importance of performing the work in a safe and responsible manner so as to prevent damage, injury, or loss to individuals, the environment, and the work itself, including materials and equipment incorporated into the work or stored on-site or off-site. Contractor assumes responsibility for implementing and monitoring all ESH precautions and programs related to the performance of the work.

2. Contractor and subcontractors shall comply with all legal and owner-specific reporting requirements relating to ESH set forth in the contract documents. Contractor will immediately report orally, and in writing within one (1) day, any ESH related injury, loss, damage, or accident arising from the work to owner’s representative and, to the extent mandated by legal requirements, to all government or quasi-government authorities having jurisdiction over safety-related matters involving the project or the work. Contractor and its subcontractors will immediately report to the owner’s representative all non-incidental spills, and all other significant impacts to the environment (soil, water, air) in performance of the work. Contractor will also promptly notify the owner of any failure to comply with state and federal environmental laws, rules, and regulations.

3. Contractor’s responsibility for ESH under this Exhibit E is not intended in any way to relieve subcontractors and sub-subcontractors of their own contractual and legal obligations and responsibilities.

ESH Requirements and Coordination

4. Safety and protection of the environment are of the utmost concern. Safety in this context refers to the health and safety of people and the protection of the environment. Nothing contained herein relieves the contractor from complying with all applicable standards and regulations found in 29 CFR Part 1926 (the OSHA construction standard), 40 CFR Parts 261-265 (solid and hazardous waste management), 40 CFR Part 112 (oil pollution control), and ARSD 74:52:01 through 74:52:11 (storm water), as applicable. Site specific safety requirements are defined in the “Contractor Safety Policy,” located at: <http://sanfordlab.org/ehs/manual/22-construction-ehs-manual-policy>. Mine Health and Safety Act (“MHSA”) compliance may be acceptable after review.

5. Contractor will address the safety requirements defined herein and in the owner’s contractor safety policy. Contractor costs associated with the implementation of the requirements will be borne by the contractor. Safety deficiencies discovered after the award will be remedied at no cost to the owner and may at the owner’s discretion be deducted from the contract amount.

6. The contractor shall have an ESH representative (also known as safety officer or SO), approved by the owner, present on the project at all times when work is physically being performed. The SO may have other duties but is ultimately responsible is to oversee safety of the worksite and work being performed by the contractor, as well as that of its subcontractors. If shift work will be utilized, the contractor must have a SO for each shift. In the case of shift work, the contractor will designate one SO as



the lead for the project. The training requirements for the second SO are the same as the lead and are as follows:

- The SO shall have thirty (30) hours of OSHA training or equivalent, with documented experience as a SO under similar conditions. Underground safety experience and training (e.g. MSHA part 48) is highly desirable.
- The SO shall have the authority to stop work.
- The SO will be certified in cardiopulmonary resuscitation ("CPR") and first aid.
- The SO is responsible for administering the contractor's ESH program.
- In addition to routine daily inspections, the SO will conduct a documented weekly ESH inspection of the work site.
- The SO will escort the owner's ESH staff on a monthly ESH inspection, conducted by the owner's ESH staff.
- The SO must be trained with respect to 40 CFR Part 112 (oil pollution prevention), 40 CFR Part 261-270 (solid and hazardous waste management), and ARSD 74:52:01 through 74:52:11 (storm water), if applicable.
- The contractor will supply a weekly ESH report to the owner, detailing any ESH related items, including OSHA recordable injuries, first aid cases, environmental releases, near misses, and a copy of the weekly ESH inspection.

7. Contractor shall have on site at all times when work is being performed at least one (1) individual certified in CPR and first aid in addition to the SO.

8. Contractor, if performing work underground, must have an individual trained and qualified as a guide for each area that the contractor will be working. The guide must be onsite with the workers at all times that workers are underground.

9. Contractor must have a documented site specific Contractor Environment, Health and Safety Program ("CEHSP") in place and accepted by the owner before work will be authorized to start. This program must be consistent with the requirements in the owner's contractor safety policy. This plan shall:

- Incorporate the requirements identified in the Contractor Safety Policy.
- Include an Area Hazards Analysis.
- Contain a Job Hazard Analysis (JHA) for each definable work element.

The CEHSP will be based on the hazards inherent to the Means and Methods adopted by the Contractor and its associated work environment. The scope of work will dictate the required program elements for this Contract. The following are examples of program elements that the Contractor may include in its CEHSP:

- Electrical safety
- Fall protection
- Personal Protective Equipment ("PPE")
- Control of hazardous energy (lock out/tag out)
- Confined space



- Hotwork (grinding and burning)
- Hoisting and rigging
- Hearing conservation (includes industrial hygiene monitoring and medical baselines, if appropriate)
- Respiratory protection (includes industrial hygiene monitoring and medical baselines, if appropriate)
- Emergency response
- Fire protection and prevention (Contractor must provide its own extinguishers)
- Blood borne pathogens
- Hazardous communications
- Machine safeguarding
- Powered industrial trucks
- Industrial hygiene
- Material handling
- Spill prevention, control, and countermeasures (contractor to provide all associated equipment)
- Storm water management
- Solid and hazardous waste management
- Air pollution control
- Scaffolding

If the contractor chooses to adopt one or more specific elements of the owner's ESH program, it must adopt that element in its entirety.

10. Contractor is expected to follow a work planning and controls process that is aligned with the owner (See Lessor's website ESH Manual at <http://sanfordlab.org/esh>). The work planning and controls process must be conducted and documented prior to the start of work. The work planning and controls process follows these steps and is documented in the form of a Job Hazards Analysis ("JHA"):

- Define the scope of the work.
- Analyze hazards in a step by step fashion.
- Develop and implement hazard controls and regulatory compliance.
- Perform the work and monitor the effectiveness of the hazard controls.
- Provide feedback to improve the process (e.g. routine workplace inspections, auditing compliance during work performance, job briefing postings, lessons learned).

A JHA, acceptable to the owner, must be completed and reviewed with the individual expected to perform the work prior to work starting on a specified task. The SO is expected to review all JHAs. Copies of JHAs must be present at the location where work is being performed and accessible to the individuals performing the work and to owner representatives.

11. Contractor will conduct a crew work planning meeting (tailgate/toolbox talk), including, when necessary, subcontractor employees, prior to the beginning of each shift. This talk will include the plan of work for the day, a review of hazards and potential regulatory issues, and the review of applicable JHAs.



12. Contractor is responsible for identifying the need for Qualified and/or Competent Persons for specific tasks as defined in 29 CFR 1926.

13. Contractor shall provide all common Personal Protective Equipment ("PPE") required for the work (hard hats, safety toe boots, safety glasses and fall arrest with suspension trauma safety straps) unless otherwise stated in the scope of work.

Unique PPE required for any *underground work* at a minimum includes:

- W65 self-rescuers (must be maintained according to MSHA requirements) (always required when working underground)
- Gas tester(s) (M40M or equivalent) (will be required for all underground work)
- Cap lamps are required

14. Contractor is responsible for screening all subcontractors with respect to safety and to adopt a safety selection process consistent with requirements defined herein. In addition, contractor is responsible for flowing down all ESH requirements of the contract to its subcontractors, including monitoring and enforcing compliance.

15. Contractor is responsible for assuring that all contractor employee safety training is completed in compliance with owner guidelines, policies and associated regulations. The following training is required for all contractor personnel before they start work:

- Documented compliance with OSHA 1910 and 1926 along with training requirements as applicable. (Note that current MSHA training certification may also be acceptable.)
- Site specific and the Sanford Underground Research Facility ("SURF") surface and/or underground orientation training, provided by SURF
- Any other training requirements identified by the contractor in its CEHSP or by the owner and communicated to the contractor, during the bid process and site specific ESH program review.

16. If the owner perceives the contractor has created or is exposed to an imminent danger, unacceptable risk or a non-compliance situation, the owner will suspend work until safe conditions are re-established. Such work stoppages will be at the expense of the contractor and will not add time to the completion date of the contract.

17. In the event of an incident, contractor will notify owner immediately and never later than the end of shift. Contractor shall conduct an incident investigation in accordance with the owner's policies. The investigation will include preparing a written report summarizing the results of the investigation, corrective actions taken to prevent a reoccurrence, and any lessons learned. The owner may at its discretion participate in and facilitate the incident investigation. Time and expense incurred by contractor performing an incident investigation will be at the contractor's expense.

18. Contractor may with the owners written permission operate Lessor owned equipment, the incidental operator must first meet Lessor requirements for operation of said equipment. The contractor shall regularly inspect, test, and calibrate as necessary all equipment, machinery, tools, or other items



furnished by the owner that are employed in contractor's work. Contractor shall take reasonable precautions to avoid damage to facility structures and utilities. If apparent defects are found in owner-provided materials or equipment, defective equipment shall be taken out of service and contractor shall promptly notify owner of such defect(s) in writing. Contractor provided equipment shall be inspected and maintained prior to arriving on-site and before each use. Failure of contractor provided equipment shall not be entitled to any compensation for downtime or delays or schedule extensions.

19. Contractor shall manage all waste in performance of the work in compliance with owner's policies and procedures and state and federal law. Further, the contractor shall minimize the generation of all wastes and hazardous substances. All disposal and clean-up cost of spills of hazardous substances and non-hazardous debris/waste generated by the contractor in the performance of the work will be at the expense of the contractor.

20. Flammables (defined in 30 CFR Part §57.4460 Storage of flammable liquids underground.) are not allowed underground. Flammables used on the surface are to be stored in engineered flammable cabinets or in containers with a minimum 1-hour fire resistance.

- Combustibles in the underground work areas shall be managed as per 30 CFR Part 57.4104 -57.4531; as applicable.

21. All chemicals to be used at the owner's facility must be approved by the owner and Safety Data Sheets ("SDS") must be maintained by the contractor and be readily available to workers on site.

22. Tier 4 engines are required on the owner's site for underground use. Lower tier equipment may be allowed on site but only with owner's permission. All underground diesel equipment must be approved by the owner prior to usage. An equipment list with associated tier designations and fuel types shall be provided to the owner in the bid package.

23. Smoking, use of tobacco products, alcohol, controlled substance or weapons are not allowed within the boundaries of the owner's facility. All property owned and operated by the Lessor is designated as tobacco-free. This applies to all areas of the surface and the underground. The contractor shall manage and maintain a drug and alcohol policy that aligns with that of the owner's written policy and procedures. ESH department review of this document may be required.

24. Contractor acknowledges that periodic evacuation drills and exercises are required by owner to validate the adequacy and effectiveness of owner's emergency response plan. Contractor also recognizes that such drills and exercises enhance its employees' understanding of owner's emergency response plan. Contractor agrees to participate in quarterly evacuation drills, which may or may not be scheduled in advance, during the term of this contract. It is understood that contractor will not be entitled to any additional compensation for participating in these evacuation drills or exercises.

25. Contractor agrees to assess whether contractor's employees have the physical, mental, and emotional capacity to perform assigned tasks competently, and in a manner that does not unreasonably threaten safety, health, or property, including participation in emergency procedures applicable to contractor's work location.

26. Owner reserves the right to restrict or deny access of any contractor employee to the work location.



27. Contractor shall report the hours worked on site by contractor's employees on a monthly basis to ESH Safety Coordinator Michelle Andresen (mandresen@sanfordlab.org) and to the Lessor representative named in the contract. Hours should be emailed to both Ms. Andresen and the Lessor representative no later than the 3rd day of the month for hours worked the previous month.

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Confirm date and time of next meeting—Chairperson Casey Peterson

The next board meeting will be held on Thursday, December 17, beginning at 9:00 AM (Mountain Time).

2020 Regular Quarterly Board Schedule	
March 19	08:00 am (MT)
June 25	08:00 am (MT)
September 17	08:00 am (MT)
December 17	09:00 am (MT)

*South Dakota Science and Technology Authority
Sanford Underground Research Facility
Education & Outreach Building (large conference room and zoom)
630 E. Summit Street
Lead, SD 57754
Questions? Contact Mandy Knight, mknight@sanfordlab.org
Direct Line: 605.722.4022, Cell: 605.641.0475*

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Public Comments—Chairperson Casey Peterson

Public comment request forms are to be submitted prior to the start of the meeting.

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Board Comments—Chairperson Casey Peterson

1. Dr. Ani Aprahamian
2. Mr. Dana Dykhouse, Vice-Chairperson
3. Ms. Pat Lebrun, Secretary-Treasurer
4. Mr. Roger Musick
5. Mr. Casey Peterson, Chairperson
6. Mr. Ron Wheeler, Vice-Chairperson
7. Dr. Robert Wilson
8. Dr. Jim Rankin, Ex-officio member

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Adjourn—Chairperson Casey Peterson

See recommended motion below.

Recommended Action:

Motion to adjourn.

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